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? b 155
     05mar02 12:51:45 User208669 Session D1974.1
        $0.35   0.100 DialUnits File1
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     $0.02  TYMNET
     $0.37  Estimated cost this search
     $0.37  Estimated total session cost   0.100 DialUnits

File 155:MEDLINE(R)  1966-2002/Feb W4

     Set  Items  Description
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? s rsv or respiratory(w)syncytial
          3417  RSV
        211412  RESPIRATORY
          6616  SYNCYTIAL
          4988  RESPIRATORY(W)SYNCYTIAL
     S1   6545  RSV OR RESPIRATORY(W)SYNCYTIAL
? s sensitivity
     S2  298573  SENSITIVITY
? s s1 and s2
          6545  S1
        298573  S2
     S3    349  S1 AND S2
? s immunoassay?
     S4  34212  IMMUNOASSAY?
? s s3 and s4
           349  S3
         34212  S4
     S5     60  S3 AND S4
? t s5/7/17

 5/7/17
DIALOG(R)File 155:MEDLINE(R)
08864441  96136193  PMID: 8537595
 Evaluation of four methods for the diagnosis of respiratory syncytial
virus infection in older adults.
 Falsey AR; McCann RM; Hall WJ; Criddle MM
 Department of Medicine, Rochester General Hospital, NY 14621-3095, USA.
 Journal of the American Geriatrics Society (UNITED STATES)  Jan 1996,
44 (1) p71-3, ISSN 0002-8614  Journal Code: H6V
 Contract/Grant No.: 1-P60-A6-10463001, PHS
 Languages: ENGLISH
 Document type: Journal Article
 Record type: Completed
 OBJECTIVE: To evaluate four methods of rapid diagnosis of respiratory
syncytial virus (RSV) infection in older adults and to compare
sensitivities with serologic analysis. DESIGN: Prospective comparative
analysis. SETTING: Two adult daycenters. PATIENTS: Frail older persons
attending the daycenter who developed signs or symptoms of acute
respiratory illness between the months of December and February.
MEASUREMENTS: Viral cultures performed by standard technique and bedside
inoculation: antigen detection by indirect immunofluorescence assay (IFA)
and Directigen enzyme immunoassay (EIA) on nasal brush samples; serologic
analysis of acute and convalescent sera using EIA. RESULTS: RSV infection
was documented by serology in 11 of 54 (20%) subjects during the study
period. Bedside viral cultures were the most sensitive assay and were
positive in 6/9 infections. Standard viral culture detected 5/11 cases.
Both methods of rapid antigen detection were found to be insensitive, with
1/11 detected by IFA and 0/11 detected by EIA. CONCLUSION: Rapid antigen
tests for the diagnosis of RSV in older persons should be used with
caution.
 Record Date Created: 19960208
? t s5/7/15 16 20 22-39 45-47 49-58

 5/7/15
DIALOG(R)File 155:MEDLINE(R)
08880820  96253006  PMID: 8650634
 [Quick diagnosis of respiratory syncytial virus infection]
 Hurtigdiagnostikk av respiratorisk syncytialt virus-infeksjon.
 Kanestrom A; Myrmel H
 Avdeling for mikrobiologi og immunologi, Haukeland Sykehus, Bergen.
 Tidsskrift for den Norske laegeforening (NORWAY)  May 10 1996, 116
(12) p1461-3, ISSN 0029-2001  Journal Code: VRV
 Languages: NORWEGIAN
 Document type: Journal Article
 Record type: Completed
 Respiratory syncytial virus (RSV) is a frequent cause of respiratory
tract infections in children, and the infection spreads rapidly in
hospitals. It is therefore important to diagnose the disease quickly. We
have examined two quick tests for detecting RSV-antigen in nasopharyngeal
aspirates: Directigen RSV (Becton Dickinson, MD, USA) and TestPack RSV
(Abbott Laboratories, Chicago, IL, USA). Both tests are based on the enzyme
immunoassay (EIA) principle. The results were compared with a method using
direct immunofluorescence. When the immunofluorescence test was used as the
standard, the sensitivities of Directigen and TestPack were 83 and 74%, and
the specificities 84 and 100%, respectively. Both of the EIA-tests had a
lower sensitivity than desired, and Directigen gave some uninterpretable
results. The tests may be considered for use in small laboratories with
limited facilities or as a supplement to other diagnostic methods.
 Record Date Created: 19960725

 5/7/16
DIALOG(R)File 155:MEDLINE(R)
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08866091 96175658 PMID: 8597323
The laboratory evaluation of opportunistic pulmonary infections.
Shelhamer JH; Gill VJ; Quinn TC; Crawford SW; Kovacs JA; Masur H; Ognibene FP
Annals of internal medicine (UNITED STATES) Mar 15 1996, 124 (6) p585-99, ISSN 0003-4819 Journal Code: 5A6
Languages: ENGLISH
Document type: Consensus Development Conference; Consensus Development Conference, NIH; Journal Article; Review
Record type: Completed
The patient population at risk for opportunistic pulmonary infections has increased during the last decade. The spectrum of organisms causing opportunistic infections has also grown. With an ever broader list of potential diagnosis, a specific diagnosis of the cause of pulmonary disease becomes more important. Recent microbiologic advances have helped to facilitate the laboratory diagnosis of some of these agents. Immunoassays are available for the detection of antigen in nasopharyngeal secretions (respiratory syncytial virus, influenza) in serum (Cryptococcus species), and in urine (Legionella or Histoplasma species). Rapid-culture techniques are available for the culture and detection of various viruses, including cytomegalovirus. Molecular probes can now assist in the rapid identification of Mycobacterium tuberculosis and some fungi. In the near future, polymerase chain reaction-based techniques may assist in the detection of Pneumocystis carinii and Legionella, Chlamydia, Mycoplasma, and Mycobacteria species. An expeditious evaluation of pulmonary disease requires an understanding of the differential diagnosis of likely causes of pulmonary disease in specific immunosuppressed patient populations, an understanding of the most appropriate specimens to process for these diagnoses, and an understanding of the limitations (sensitivity and specificity) of these diagnostic tests. An understanding of the most appropriate specimens and tests in a given institution should allow for early, relatively specific treatment of many potentially life-threatening infections. (94 Refs.)
Record Date Created: 19960415

5/7/20
DIALOG(R)File 155:MEDLINE(R)
08731266 96246493 PMID: 8654442
Evaluation of direct immunofluorescence, dot-blot enzyme immunoassay, and shell-vial culture for detection of respiratory syncytial virus in patients with bronchiolitis.
Reina J; Ros MJ; Del Valle JM; Blanco I; Munar M
Clinical Microbiology Service, University Hospital Son Dureta, Palma de Mallorca, Spain.
European journal of clinical microbiology & infectious diseases (GERMANY) Nov 1995, 14 (11) p1018-20, ISSN 0934-9723 Journal Code: EM5
Languages: ENGLISH
Document type: Clinical Trial; Journal Article
Record type: Completed
Record Date Created: 19960801

5/7/22
DIALOG(R)File 155:MEDLINE(R)
08370024 95229780 PMID: 7714062
Routine diagnosis of seven respiratory viruses and Mycoplasma pneumoniae by enzyme immunoassay.
Kok T; Mickan LD; Burrell CJ
Division of Medical Virology, Institute of Medical and Veterinary Science, Adelaide, Australia.
Journal of virological methods (NETHERLANDS) Dec 1994, 50 (1-3) p87-100, ISSN 0166-0934 Journal Code: HQR
Languages: ENGLISH
Document type: Journal Article
Record type: Completed
A composite EIA, using 8-well microstrips, was used for the rapid detection of seven respiratory viruses and M. pneumoniae. The viruses included influenza A and B, parainfluenza 1, 2 and 3, adenovirus and respiratory syncytial virus. During the 61 month period--June 1988 to June 1993--17326 respiratory specimens, submitted from three states, were tested by this EIA. The specimens were mainly from a paediatric population (hospitals and private physicians). RSV was the predominant virus detected, followed by adenovirus, parainfluenza 3, M. pneumoniae, influenza A, parainfluenza 2, influenza B and parainfluenza 1. The use of blocking antibodies confirmed the identification of the agents, in particular with samples showing absorbance values greater than the cutoff with more than one infectious agent. Different methods for processing specimens in order to obtain a uniform suspension, and interpretation of non-specific reactions, are discussed. The assays showed an average sensitivity of 85% and specificity of 99%, compared to virus culture. This EIA system provided an efficient method for the rapid diagnosis of viral and mycoplasmal infections in a busy diagnostic laboratory.
Record Date Created: 19950516

5/7/23
DIALOG(R)File 155:MEDLINE(R)
08326602 95124956 PMID: 7824493
[Virological diagnosis and treatment of respiratory syncytial virus infections]
Diagnostic virologique et traitement des infections a virus respiratoire syncytial.
Freymuth F; Brouard J; Petitjean J; Eugene G; Vabret A; Duhamel JF; Guillois B
Laboratoire de Virologie, CHU de Caen.
La Presse medicale (FRANCE) Nov 5 1994, 23 (34) p1571-6, ISSN

0755-4982 Journal Code: PMT
Languages: FRENCH
Document type: Journal Article; Review; Review, Tutorial
Record type: Completed
Respiratory syncytial virus infections occur frequently in children, often localized in the upper respiratory tract. Outcome is usually quite satisfactory, but in nearly one half of the infants lower tract involvement may cause severe respiratory insufficiency leading to hospitalization in about 1% of the cases. Its frequency has been estimated at 20 to 30% of the viral infections in hospitalized infants, 10 times the frequency of the other respiratory virus. Respiratory syncytial epidemias last about 4 to 5 months with a seasonal peak in december and january. The direct detection of respiratory syncytial antigens in nasal specimens by immunofluorescence or enzymatic immunoassay is the key to rapid diagnosis. They appear as performant and more convenient than specific IgM antibodies or nucleic acid detections, and than virus isolation on cell culture, which is justified to evaluate strain sensitivity to ribavirin. Immunofluorescence has also been used to identify the subgroups A and B from 1981 to 1993, and respiratory syncytial subgroup A seems to signify more severe disease. Symptomatic assistance may require hydratation, oxygenotherapy and respiratory physical therapy. Antibiotics should not be given as a routine treatment since bacterial superinfection is infrequent, but may be indicated in cases with associated signs of complications. Indications for bronchodilators and corticosteroids are still under debate. Significant results have been obtained with ribavirin and specific anti respiratory syncytial immunoglobulins but further evaluations are still required to precise their use in clinical practice. (59 Refs.)
Record Date Created: 19950216

5/7/24
DIALOG(R)File 155:MEDLINE(R)
08135308 94247977 PMID: 8190574
Evaluation of a rapid diagnostic test for respiratory syncytial virus (RSV): potential for bedside diagnosis.
Krilov LR; Lipson SM; Barone SR; Kaplan MH; Ciamician Z; Harkness SH
Department of Pediatrics, North Shore University Hospital-Cornell University Medical College, Manhasset, NY 11021.
Pediatrics (UNITED STATES) Jun 1994, 93 (6 Pt 1) p903-6, ISSN 0031-4005 Journal Code: OXV
Languages: ENGLISH
Document type: Journal Article
Record type: Completed
OBJECTIVE. Rapid detection of respiratory syncytial virus (RSV) infection can assist clinicians in decisions regarding antiviral therapy with ribavirin as well as instituting infection control measures. The Abbott TestPack RSV is a rapid RSV detection immunoassay that can be performed on respiratory secretions in 20 to 30 minutes without special laboratory equipment. The purpose of this study was to evaluate housestaff performance of the TestPack RSV at bedside as compared with laboratory testing of aliquots of the same specimen by tissue culture inoculation, direct fluorescent antibody (DFA) testing and TestPack RSV. METHODS. During the 1991 through 1992 RSV season, 137 nasopharyngeal aspirates or washes obtained from pediatric patients < 4 years of age suffering from acute respiratory disease were assayed by the Food and Drug Administration-approved TestPack RSV as well as conventional tube culture and DFA testing. RESULTS. 66 of 137 (48%) specimens were positive for RSV as defined by: isolation and DFA-positive (n = 48) and DFA testing positive with negative culture (n = 18); blocking assay experiments using TestPack RSV confirmed culture-negative DFA-positive specimens as positive in 8/8 instances in which material for retesting was available. Using these definitions, the sensitivity and specificity for the assays were: housestaff TestPack RSV: 92%, 93%; laboratory TestPack RSV: 97%, 98%; virus isolation: 72%, 100%. CONCLUSION. From these data, it appears that the TestPack RSV EIA in the field setting is reliable, although laboratory confirmation of results is important.
Record Date Created: 19940623

5/7/25
DIALOG(R)File 155:MEDLINE(R)
07904272 93280670 PMID: 8505698
Enzyme immunoassay for respiratory syncytial virus: rapid detection in nasopharyngeal secretions and evaluation of isolates representing different RSV subgroups.
Siqueira MM; Nascimento JP; Portes SA; Schuy W
Departamento de Virologia, Fundacao Oswaldo Cruz, Rio de Janeiro, Brazil.
Journal of clinical laboratory analysis (UNITED STATES) 1993, 7 (2) p130-3, ISSN 0887-8013 Journal Code: JLA
Languages: ENGLISH
Document type: Journal Article
Record type: Completed
The presence of respiratory syncytial virus (RSV) was investigated by immunofluorescent antibody (IFA) technique and by an enzyme immunoassay (EIA) in 169 samples of nasopharyngeal secretions of infants and children with acute respiratory infections. Of 31 samples positive by EIA, 25 were positive by IFA. In 24 samples from a retrospective study, RSV positive by IFA and/or tissue culture isolation (TCI), 22 were also positive by EIA. The EIA was also evaluated with 111 RSV isolates in Hep2 cell cultures representing different RSV subgroups. All were positive by EIA.
Record Date Created: 19930702

5/7/26
DIALOG(R)File 155:MEDLINE(R)
07896153 93265724 PMID: 8495589
Performance of the Kallestad Pathfinder enzyme immunoassay in the

diagnosis of respiratory syncytial virus infections.
Olsen MA; Shuck KM; Sambol AR; Bohnert VA; Henery ML
Department of Medical Microbiology, Creighton University School of Medicine, Omaha, NE 68178.
Diagnostic microbiology and infectious disease (UNITED STATES) May-Jun 1993, 16 (4) p325-9, ISSN 0732-8893 Journal Code: DMI
Languages: ENGLISH
Document type: Journal Article
Record type: Completed
The Kallestad Pathfinder enzyme immunoassay (EIA) for the rapid detection of respiratory syncytial virus (RSV) antigen was compared with virus culture and direct fluorescent antibody (DFA) to determine the reliability of the EIA. During two consecutive winter respiratory seasons, 270 nasopharyngeal wash specimens were tested. RSV was detected in culture by the presence of cytopathic effect and/or an indirect immunofluorescence assay. The sensitivity of the Pathfinder EIA in comparison with isolation in tube culture was 72% (73 of 101) and the specificity was 99% (167 of 169). During the second year of the evaluation period, DFA was performed on all specimens. The sensitivity of the DFA compared with isolation in tube culture was 94%. This study indicates that the Pathfinder EIA is a very specific test for diagnosis of RSV infections, but lacks sensitivity in comparison with tube culture or direct immunofluorescence.
Record Date Created: 19930618

5/7/27
DIALOG(R)File 155:MEDLINE(R)
07873637 93223390 PMID: 8467621
Evaluation of Abbott TestPack RSV for the diagnosis of respiratory syncytial virus infections.
Olsen MA; Shuck KM; Sambol AR
Department of Medical Microbiology, Creighton University School of Medicine, Omaha, Nebraska.
Diagnostic microbiology and infectious disease (UNITED STATES) Feb 1993, 16 (2) p105-9, ISSN 0732-8893 Journal Code: DMI
Languages: ENGLISH
Document type: Journal Article
Record type: Completed
Abbott TestPack RSV, a 20-minute enzyme immunoassay, is available for the rapid diagnosis of respiratory syncytial virus (RSV) infections. We have compared TestPack with a "gold standard" method of virus isolation in traditional tube cultures and shell vials to determine the sensitivity and specificity of this rapid method. Respiratory specimens were collected prospectively from 402 children and assayed by the rapid antigen detection method and isolation in culture. Virus was isolated by inoculation of specimen in a total of eight tubes and 2-3 shell vials. Isolation of RSV was confirmed by characteristic cytopathic effect and immunofluorescence using monoclonal antibodies to RSV. Of the 402 specimens tested, there were only 18 discrepant results (seven TestPack-positive, culture-negative, and 11 TestPack-negative, culture-positive specimens). The sensitivity of TestPack RSV versus culture was 93.6% (162 of 173) and the specificity was 97.0% (222 of 229). Using a very rigorous culture system, we have obtained high values for the sensitivity and specificity of TestPack RSV. This assay is an excellent method for the rapid diagnosis of RSV infections in young children.
Record Date Created: 19930512

5/7/28
DIALOG(R)File 155:MEDLINE(R)
07665722 93049369 PMID: 1425717
Evaluation of three rapid enzyme immunoassays and cell culture for detection of respiratory syncytial virus.
Mendoza J; Rojas A; Navarro JM; Plata C; de la Rosa M
Servicio de Microbiologia, Hospital Regional de Especialidades Virgen de las Nieves, Granada, Spain.
European journal of clinical microbiology & infectious diseases (GERMANY) May 1992, 11 (5) p452-4, ISSN 0934-9723 Journal Code: EM5
Languages: ENGLISH
Document type: Journal Article
Record type: Completed
Three rapid enzyme immunoassay techniques for the detection of respiratory syncytial virus antigen (Becton Dickinson Directigen RSV, Abbott RSV Testpack and Abbott RSV EIA) and cell culture were evaluated in a total of 250 nasal washings. The sensitivity and specificity were 62% and 76% respectively for Directigen, 64% and 86% for RSV Testpack, and 76% and 81% for RSV EIA, taking cell culture as the reference method. Agreement between cell culture and EIA techniques was 79% (70 positive and 128 negative results). All three EIA techniques gave positive results in 69 samples (52 positive and 17 negative in the cell culture). In 121 samples all three EIA techniques gave negative results (103 negative and 18 positive in the cell culture). Using the cell culture technique 46 strains other than respiratory syncytial virus were isolated.
Record Date Created: 19921203

5/7/29
DIALOG(R)File 155:MEDLINE(R)
07642189 93011185 PMID: 1396733
Comparison of a new commercial enzyme immunoassay for rapid detection of respiratory syncytial virus.
Garea MT; Lopez JM; Perez del Molino ML; Coira A; Pardo F
Servicio de Microbiologia, Hospital General de Galicia, Santiago de Compostela, Spain.
European journal of clinical microbiology & infectious diseases (GERMANY) Feb 1992, 11 (2) p175-7, ISSN 0934-9723 Journal Code: EM5
Languages: ENGLISH

Document type: Journal Article
Record type: Completed
Two rapid methods for detection of respiratory syncytial virus in respiratory specimens were compared: direct immunofluorescence assay (DFA) with monoclonal antibody and an enzyme immunoassay (EIA) (Test-Pack RSV). Ninety-five nasopharyngeal washings and aspirates from 51 children were examined; the patients were hospitalized during a winter outbreak of RSV infection in the first trimester of 1990. A total of 41.0% and 56.8% of these samples were positive by EIA and DFA respectively. Considering only the 51 specimens collected at the onset of illness, EIA detected 72.5% positive samples and DFA detected 78.4%. In comparison with DFA, EIA was 92.5% sensitive and 100% specific for the acute phase of illness. When all the samples were taken into account, specificity was maintained but sensitivity fell to 72.2%. The results show that both methods are useful during the acute phase of the illness, when the viral load is important. However, later on in the course of the infection DFA appears to be more sensitive than EIA.
Record Date Created: 19921026

5/7/30
DIALOG(R)File 155:MEDLINE(R)
07635679 92365565 PMID: 1501586
Comparison of three immunoassays for the rapid detection of bovine respiratory syncytial virus.
Lokensgard BE; Goyal SM; Krueger DA
Department of Veterinary Diagnostic Investigation, College of Veterinary Medicine, University of Minnesota, St. Paul, 55108.
Microbiologica (ITALY) Jul 1992, 15 (3) p259-64, ISSN 0391-5352 Journal Code: MXR
Languages: ENGLISH
Document type: Journal Article
Record type: Completed
Three enzyme-linked immunosorbent assays (EIA) designed for the detection of human respiratory syncytial virus (RSV) were evaluated for the detection of bovine respiratory syncytial virus (BRSV) in bovine lungs and the results were compared with those obtained by a direct fluorescent antibody assay (DFA). The EIA tests used were Directigen EIA, Kallestad Pathfinder EIA, and Abbott RSV EIA. Homogenates of lung tissues obtained from 64 cattle that had died of respiratory disease were used; 32 were positive by DFA and 32 were negative. All EIA's varied in the amount of labor and time involved but their relative sensitivities were similar ranging between 59 and 66% when compared with DFA. The specificity of Pathfinder EIA was lower than those of the Directigen and Abbott tests. The overall agreement between the three EIA's and the DFA was 66-77% indicating that DFA is still the test of choice for detecting BRSV infection in lung tissues of cattle.
Record Date Created: 19920917

5/7/31
DIALOG(R)File 155:MEDLINE(R)
07447080 91365888 PMID: 1890186
Reliability of two new test kits for rapid diagnosis of respiratory syncytial virus infection.
Rothbarth PH; Hermus MC; Schrijnemakers P
Department of Virology, University Hospital Rotterdam, The Netherlands.
Journal of clinical microbiology (UNITED STATES) Apr 1991, 29 (4) p824-6, ISSN 0095-1137 Journal Code: HSH
Languages: ENGLISH
Document type: Journal Article
Record type: Completed
Two new rapid enzyme immunoassays (EIAs) for detecting respiratory syncytial virus (RSV), Directigen (Becton Dickinson Microbiology Systems) and TestPack (Abbott Diagnostics) were compared with virus isolation and direct immunofluorescence by using fresh specimens. The sensitivities of both EIAs were low (72 to 73%), but when initial specimens were used, TestPack had a high sensitivity (92%) in contrast to that of Directigen (76%). Because of its high sensitivity and specificity, TestPack can be used for diagnosis of RSV in acute disease.
Record Date Created: 19911015

5/7/32.
DIALOG(R)File 155:MEDLINE(R)
07395128 91214204 PMID: 2021312
Culture vs direct antigen assays for detection of microbial pathogens from lower respiratory tract specimens suspected of containing the respiratory syncytial virus.
Kellogg JA
Clinical Microbiology Laboratory, York Hospital, PA 17405.
Archives of pathology & laboratory medicine (UNITED STATES) May 1991, 115 (5) p451-8, ISSN 0003-9985 Journal Code: 79Z
Languages: ENGLISH
Document type: Journal Article; Review; Review, Tutorial
Record type: Completed
Following the introduction of effective antiviral chemotherapy, rapid antigen assays have been utilized increasingly, instead of cell cultures, for detection of the respiratory syncytial virus from lower respiratory tract specimens. Because antigen assays, unlike cell culture, cannot amplify low levels of the virus to a detectable level, assay sensitivity is especially dependent on high-quality specimens. In addition, the assays are unable to detect other viruses or bacteria with which the patient may be infected. This review summarizes results from clinical studies of the performance of cell cultures and the more commonly used antigen assays, describes factors that may lead to false-positive or false-negative test results, and makes recommendations for the selection of procedures for the reliable detection of microbial pathogens from patients suspected of being

infected with respiratory syncytial virus. (134 Refs.)
Record Date Created: 19910530

5/7/33
DIALOG(R)File 155:MEDLINE(R)
07386255 91185838 PMID: 2010616
Dual-enzyme cascade-magnetic separation immunoassay for respiratory syncytial virus.
Vonk GP; Schram JL
Becton Dickinson Research Center, Research Triangle Park, NC 27709.
Journal of immunological methods (NETHERLANDS) Mar 1 1991, 137 (1) p133-9, ISSN 0022-1759 Journal Code: IFE
Languages: ENGLISH
Document type: Journal Article
Record type: Completed
A new immunoassay developed for the detection of respiratory syncytial virus (RSV) makes use of magnetic separation and amplification by a dual-enzyme cascade for signal generation. Magnetic particles are conjugated to monoclonal anti-RSV antibodies through the heterobifunctional crosslinker sulfosuccinimidyl 4-(maleimidomethyl)cyclohexane-1-carboxylate, yielding particles of high specific activity and low background. The dual-enzyme cascade is initiated by activation of a masked inhibitor for the enzyme rabbit liver esterase (RLE) by an alkaline phosphatase-antibody conjugate. The esterase activity is then measured to determine the degree of inhibition and, hence, the amount of specifically labeled antigen. These methods yield an immunoassay which is rapid and sensitive. Formation of the immunometric complex requires only 7 min and the total assay time is 40 min. The limit of detection for RSV fusion protein was found to be 1 ng or 10(-14) mol per test. Pre-clinical evaluation of the assay with 52 clinical specimens (nasal washes or aspirates) gave 96% sensitivity (25/26) and 96% specificity (25/26) with respect to a microtiter ELISA procedure and blocking antibody assay.
Record Date Created: 19910503

5/7/34
DIALOG(R)File 155:MEDLINE(R)
07329438 91274452 PMID: 2098144
[Evaluation of methods for the detection of syncytial respiratory virus in nasopharyngeal secretions]
Valoracion de metodos de deteccion de virus respiratorio sincitial en secreciones nasofaringeas.
Buesa FJ; Garcia-Verdu R; Pastor M; Escribano A
Departamento de Microbiologia, Facultad de Medicina, Universidad de Valencia.
Enfermedades infecciosas y microbiologia clinica (SPAIN) Feb 1990, 8 (2) p78-81, ISSN 0213-005X Journal Code: A10
Languages: SPANISH
Document type: Journal Article
Record type: Completed
The screening for respiratory syncytial virus (RSV) in nasopharyngeal secretions with enzyme immunoassay (ELISA) and indirect immunofluorescence (IIF) has been evaluated in infants and young children with acute respiratory infection. Both methods were compared with viral isolation in HEp-2 cells and the investigation of fluorescent foci in cell cultures inoculated by centrifugation. 226 samples were evaluated by IFF, 182 of which were also evaluated by ELISA while 158 were inoculated into cell cultures. 20.35% of samples were positive with IFF and 19.23% with ELISA. Isolation of RSV was obtained in 25 of the samples inoculated into HEp-2 cells (15.8%). The cytopathic effect took a mean of 5.4 days to develop. The investigation of fluorescent foci in centrifugated cultures allowed to detect 76% of positive samples 24 hours after centrifugation and 84% of positive samples 48 hours after it. Considering the viral isolation as the reference method, IIF and ELISA had a 88% and 76% sensitivity, respectively, with very similar specifities (90.2% and 91.7%).
Record Date Created: 19910801

5/7/35
DIALOG(R)File 155:MEDLINE(R)
07270628 90338410 PMID: 2199510
Evaluation of the Becton Dickinson Directigen test for respiratory syncytial virus in nasopharyngeal aspirates.
Kok T; Barancek K; Burrell CJ
Division of Medical Virology, Institute of Medical and Veterinary Science, Adelaide, South Australia.
Journal of clinical microbiology (UNITED STATES) Jun 1990, 28 (6) p1458-9, ISSN 0095-1137 Journal Code: HSH
Languages: ENGLISH
Document type: Journal Article
Record type: Completed
A premarket trial of the Becton Dickinson Directigen respiratory syncytial virus membrane-based enzyme immunoassay compared the test with virus isolation for the detection of respiratory syncytial virus in 583 nasopharyngeal aspirates. After modification, the Directigen test showed a sensitivity of 83% and a specificity of 90%. It offers the potential for an efficient bedside test--without the need for any equipment--for the diagnosis of respiratory syncytial virus infection and requires only a 0.25-ml sample volume. However, for optimum reliability, freezing-thawing of samples and access to a confirmatory test were shown to be necessary.
Record Date Created: 19900912

5/7/36
DIALOG(R)File 155:MEDLINE(R)
07270619 90338392 PMID: 2199500
Detection of respiratory syncytial virus antigen in nasal washings by

Abbott TestPack enzyme immunoassay.
Wren CG; Bate BJ; Masters HB; Lauer BA
University of Colorado School of Medicine, Denver 80262.
Journal of clinical microbiology (UNITED STATES) Jun 1990, 28 (6) p1395-7, ISSN 0095-1137 Journal Code: HSH
Languages: ENGLISH
Document type: Journal Article
Record type: Completed
We compared the new Abbott TestPack (TP) respiratory syncytial virus (RSV) enzyme immunoassay (EIA) with cell culture and two commercial RSV EIAs (from Abbott Diagnostics and Kallestad Laboratories) by using split samples of fresh nasal washings from children with suspected RSV disease. Two tubes of HEp-2 cells were inoculated and observed for cytopathic effect for 14 days, and isolates were confirmed by immunofluorescence. The TP EIA was performed by following the manufacturer's instructions. Specimens positive by TP EIA but negative by culture were examined in a competitive inhibition (blocking) assay using the TP EIA, and rabbit anti-RSV serum. Of 218 specimens, 93 were positive by culture, 105 were positive by TP EIA, 80 were positive by the Abbott Diagnostics EIA, and 87 were positive by the Kallestad Laboratories EIA. The sensitivity, specificity, positive predictive value, and negative predictive value of the TP EIA were 92, 86, 81, and 93%, respectively. Of 20 apparently false-positive TP EIAs, 10 of 14 that were positive when retested were neutralized in the blocking assay, indicating that they were truly positive. The recalculated sensitivity, specificity, positive predictive value, and negative predictive value of the TP EIA were 92, 91, 90, and 93%, respectively. We conclude that the TP EIA is easy to perform, rapid (less than 0.5 h), and accurate.
Record Date Created: 19900912

5/7/37
DIALOG(R)File 155:MEDLINE(R)
07268790 90323020 PMID: 2197094
A rapid test for detection of respiratory syncytial virus in nasopharyngeal secretion.
Hornsleth A
University of Copenhagen, Department of Clinical Virology, Denmark.
European journal of clinical microbiology & infectious diseases (GERMANY, WEST) May 1990, 9 (5) p356-8, ISSN 0934-9723 Journal Code: EM5
Languages: ENGLISH
Document type: Journal Article
Record type: Completed
A new rapid membrane enzyme immunoassay (MEIA; Directigen RSV) for detection of respiratory syncytial virus (RSV) was evaluated using samples of nasopharyngeal secretion from infants and children with acute respiratory disease. The MEIA was compared with an immunofluorescent antibody (IF) technique using a sensitive biotin-avidin (BA) EIA as reference. Of 242 samples tested, 108 were positive by the MEIA and 123 by the BA-EIA. Of 144 samples which were also tested by the IF technique, 57 were positive by the BA-EIA and 43 by the IF technique. These results give a sensitivity of 86% and 72% for the MEIA and IF technique respectively. Of 57 samples found to be positive by the BA-EIA, 41 were positive by the IF technique, but 48 were positive by the MEIA. The MEIA is thus more sensitive than the IF technique but less sensitive than the BA-EIA in detecting RSV in nasopharyngeal secretions.
Record Date Created: 19900830

5/7/38
DIALOG(R)File 155:MEDLINE(R)
07145494 94013376 PMID: 8408545
Comparison of rapid diagnostic techniques for respiratory syncytial and influenza A virus respiratory infections in young children.
Dominguez EA; Taber LH; Couch RB
Department of Microbiology, Baylor College of Medicine, Houston, Texas 77030.
Journal of clinical microbiology (UNITED STATES) Sep 1993, 31 (9) p2286-90, ISSN 0095-1137 Journal Code: HSH
Contract/Grant No.: NO1-AI-15103, AI, NIAID
Languages: ENGLISH
Document type: Journal Article
Record type: Completed
We performed virus isolation tests for respiratory viruses on combined nasal wash-throat swab specimens collected from infants and children with acute respiratory illnesses presenting to a hospital clinic during a 3-month period of concurrent epidemics of respiratory syncytial virus (RSV) and influenza A virus (Flu A) infections. Virus isolation results were used to assess the utility of commercially available rapid diagnostic kits for these two viruses. The kits employed direct immunofluorescence (IF) of cells (Imagen for RSV and Flu A), indirect IF of cells (Baxter Bartels Microscan), and enzyme immunoassay (EIA) (Becton Dickinson Directigen for RSV and Flu A and Abbott TestPack for RSV). All testing was completed on 81 specimens from 80 subjects. Of the 81 specimens, 53 (65%) yielded a virus: RSV, 28%; Flu A, 25%; rhinovirus, 6%; and enterovirus, cytomegalovirus, herpes simplex virus, and adenovirus, 2 to 4% each. Among the tests, Bartels Microscan and Directigen Flu-A exhibited the highest sensitivities (87 and 75%) and efficiencies (94 and 94%) for RSV and Flu A, respectively. All the tests exhibited high specificity. Thus, optimal detection of RSV and Flu A among infants and children who presented to a hospital clinic required two different detection methods (IF and enzyme immunoassay) and kits from two different companies (Baxter [Bartels Microscan] and Becton Dickinson [Directigen]).
Record Date Created: 19931102

5/7/39
DIALOG(R)File 155:MEDLINE(R)

07070267 93346706 PMID: 8345165
New developments in the diagnosis of viral diseases.
Smith TF; Wold AD; Espy MJ; Marshall WF
Division of Clinical Microbiology, Mayo Clinic and Foundation, Rochester, Minnesota.
Infectious disease clinics of North America (UNITED STATES) Jun 1993, 7 (2) p183-201, ISSN 0891-5520 Journal Code: IDC
Languages: ENGLISH
Document type: Journal Article; Review; Review, Tutorial
Record type: Completed
Major technical advances have occurred, especially in the last 5 years, in the laboratory diagnosis of viral infections. Immunologic detection of immediate early antigens in specimens such as bronchoalveolar lavage fluid and blood inoculated into shell vial cell cultures, particularly for herpesvirus (cytomegalovirus, herpes simplex virus, varicella-zoster virus), has provided results 16 to 48 hours after inoculation rather than the several days required for recognition of cytopathic effects in conventional tube cell cultures. Similarly, cytomegalovirus viremia can be detected directly by immunostaining of peripheral blood leukocytes with commercially available reagents the same day the specimen is submitted to the laboratory. Single-test membrane immunoassays have provided rapid (15 minutes) detection of viral antigens (respiratory syncytial virus, rotavirus, influenza virus type A). In the near future, diagnostic virology laboratories will be expected to monitor viral strains for susceptibility to the growing list of antiviral drugs. Amplification of nucleic acid sequences of viruses from cerebrospinal fluid or tissue, which generally does not yield isolates by conventional diagnostic techniques, has added a new dimension to the laboratory diagnosis of viral infection. (83 Refs.)
Record Date Created: 19930908

5/7/45
DIALOG(R)File 155:MEDLINE(R)
06537166 88187103 PMID: 3281981
Detection of respiratory syncytial virus in clinical specimens by viral culture, direct and indirect immunofluorescence, and enzyme immunoassay.
Hughes JH; Mann DR; Hamparian VV
Department of Medical Microbiology and Immunology, College of Medicine, Ohio State University, Columbus 43210.
Journal of clinical microbiology (UNITED STATES) Mar 1988, 26 (3) p588-91, ISSN 0095-1137 Journal Code: HSH
Languages: ENGLISH
Document type: Journal Article
Record type: Completed
We evaluated prospectively the detection of respiratory syncytial virus (RSV) by culture and by direct antigen detection using an indirect immunofluorescence assay (IFA), a direct monoclonal immunofluorescence assay (DFA), and a monoclonal enzyme immunoassay (EIA). Of 221 specimens, 95 (43%) were culture positive for RSV, 4 (1.8%) contained more than one virus, and 17 (7.6%) contained a virus other than RSV. Overall, HEp-2 and Flow 6000 cells grew significantly more RSV isolates (82 and 72%, respectively) than A549 cells, which grew only 29% of the isolates. The mean time for RSV detection with HEp-2 cells was 2.9 days. This was significantly less than the mean time for RSV detection with either Flow 6000 cells (6.1 days) or A549 cells (6.4 days). Of 221 specimens, 129 were tested simultaneously by culture, IFA, and DFA. Of these 129 specimens, 62 (48%) were positive by culture, 69 (53%) were positive by IFA, and 70 (54%) were positive by DFA. For 92 specimens screened simultaneously by culture, IFA, and EIA, positive results were obtained for 33 (36%) of the specimens by both culture and IFA and for 29 (32%) of the specimens by EIA. Of 126 culture-negative specimens, 21 (17%) were positive for RSV when determined by IFA. Conversely, 14 (15%) of 95 RSV culture-positive specimens were negative by IFA, whereas DFA missed 19% of the culture-positive specimens. Compared with culture, the Kallestad EIA kit had a sensitivity and specificity of 73 and 92% respectively, but missed 9 (27%) of 33 culture-positive specimens.(ABSTRACT TRUNCATED AT 250 WORDS)
Record Date Created: 19880524

5/7/46
DIALOG(R)File 155:MEDLINE(R)
06386576 86198659 PMID: 3517226
Evaluation of clinical specimens for the presence of respiratory syncytial virus antigens using an enzyme immunoassay.
Flanders RT; Lindsay PD; Chairez R; Brawner TA; Kumar ML; Swenson PD; Bromberg K
Journal of medical virology (UNITED STATES) May 1986, 19 (1) p1-9, ISSN 0146-6615 Journal Code: I9N
Languages: ENGLISH
Document type: Journal Article
Record type: Completed
An enzyme-linked immunoassay (EIA) was developed for the detection of respiratory syncytial virus (RSV) antigen in nasopharyngeal secretions. This assay, which employs goat and rabbit anti-RSV as the capture and detector antibodies respectively, was used in a retrospective evaluation of frozen clinical specimens from children. The EIA results were compared with those of virus isolation in cell culture and direct fluorescent antibody staining performed at the time of specimen collection. The sensitivity of the RSV EIA compared to cell culture was 91.3% (63/69) with a specificity of 96.8% (93/96). The predictive value of a positive EIA result was 95.4% and for a negative EIA result, 93.9%. The sensitivity of the RSV-EIA compared to direct FA was 91.5% (43/47) with a specificity of 96.5% (83/86). These data represent the preclinical evaluation of the Abbott RSV-EIA. This assay could prove to be a useful alternative to virus isolation or direct FA for the diagnosis of RSV infection.
Record Date Created: 19860618

5/7/47
DIALOG(R)File 155:MEDLINE(R)
06384511 86168784 PMID: 3514658
Rapid detection of respiratory syncytial virus in nasopharyngeal aspirates by a commercial enzyme immunoassay.
Swenson PD; Kaplan MH
Journal of clinical microbiology (UNITED STATES) Mar 1986, 23 (3) p485-8, ISSN 0095-1137 Journal Code: HSH
Erratum in J Clin Microbiol 1986 May;23(5) 995
Languages: ENGLISH
Document type: Journal Article
Record type: Completed
A commercial enzyme immunoassay (EIA) for the rapid detection of respiratory syncytial virus (RSV) in respiratory secretions was evaluated by comparison with both virus isolation in HEp-2 cells and indirect immunofluorescence (IFA) staining of exfoliated respiratory cells. Initial examination of 80 nasopharyngeal aspirates collected from infants with acute respiratory illness showed that the RSV EIA was positive for 21 of 24 specimens positive by virus isolation or IFA (87.5% sensitivity) and negative for 53 of 56 specimens negative by virus isolation and IFA (95% specificity). The EIA appears to be an acceptable and more rapid test than virus isolation for the detection of RSV, especially for laboratories in which prompt inoculation of specimens is not always possible. IFA staining with commercial bovine anti-RSV serum was found to be the most sensitive and rapid test for the detection of RSV. However, three of four specimens positive by IFA and negative by virus isolation were not cultured under optimal conditions. In addition, the IFA test requires a highly trained technologist to interpret the staining results.
Record Date Created: 19860514

5/7/49
DIALOG(R)File 155:MEDLINE(R)
05931762 88268427 PMID: 2455493
An enzyme-linked immunosorbent assay using monoclonal antibodies for the detection of respiratory syncytial virus in clinical specimens.
Obert G; Beyer C
Laboratoire de Virologie, Faculte de Medecine, U74 de l'Inserm, Strasbourg, France.
Archives of virology (AUSTRIA) 1988, 100 (1-2) p37-49, ISSN 0304-8608 Journal Code: 8L7
Languages: ENGLISH
Document type: Journal Article
Record type: Completed
An enzyme-linked immunosorbent assay (ELISA) has been developed for the detection of respiratory syncytial virus in nasopharyngeal secretions. This assay employed as immunoreagents two monoclonal antibodies directed against two distinct epitopes of the viral nucleocapsid. One of them (RSV 4) was used for antigen capture and the other (NC 4) was labelled with N-hydroxy-succinimide-epsilon-caproil biotin and used for antigen detection. Streptavidin biotin-peroxidase complexes were employed as amplification mode. The immunoassay was performed in 6 hours and was able to detect as little as 1 ng/ml of purified nucleocapsid. When 87 nasopharyngeal secretions were analyzed by an indirect immunofluorescence assay using commercial reagents and by the newly developed ELISA, the sensitivity and the specificity of the two assays were found to be very similar.
Record Date Created: 19880808

5/7/50
DIALOG(R)File 155:MEDLINE(R)
05852115 89327473 PMID: 2546973
Comparison of monoclonal antibody time-resolved fluoroimmunoassay with monoclonal antibody capture-biotinylated detector enzyme immunoassay for respiratory syncytial virus and parainfluenza virus antigen detection.
Hierholzer JC; Bingham PG; Coombs RA; Johansson KH; Anderson LJ; Halonen PE
Division of Viral Diseases, Centers for Disease Control, Atlanta, Georgia 30333.
Journal of clinical microbiology (UNITED STATES) Jun 1989, 27 (6) p1243-9, ISSN 0095-1137 Journal Code: HSH
Languages: ENGLISH
Document type: Journal Article
Record type: Completed
An all-monoclonal antibody, time-resolved fluoroimmunoassay was compared with several enzyme immunoassays for the detection of respiratory syncytial virus and parainfluenza virus type 1, 2, and 3 antigens in clinical specimens. The most sensitive enzyme immunoassay for parainfluenza virus type 1 was an all-monoclonal antibody assay with biotin-labeled detector antibody and streptavidin-peroxidase conjugate, but for respiratory syncytial virus and parainfluenza virus types 2 and 3 the most sensitive assay was a polyclonal antibody assay with horse capture antibodies and bovine or rabbit detector antibodies with anti-species peroxidase. All tests were evaluated with nasopharyngeal aspirate specimens from respiratory illnesses and with cell culture harvests of multiple strains of each virus isolated over many years. The time-resolved fluoroimmunoassay detected respiratory syncytial virus antigen in 92% of the specimens positive by culture, which was a decidedly higher sensitivity than either the monoclonal or polyclonal antibody enzyme immunoassay format (62 and 76%, respectively). For the parainfluenza viruses the time-resolved fluoroimmunoassay detected type-specific antigen in 94 to 100% of culture-positive specimens and again was more sensitive than the all-monoclonal antibody enzyme immunoassays (75 to 89%) or all-polyclonal antibody enzyme immunoassays (66 to 95%). Combined with results from a previously reported adenovirus time-resolved fluoroimmunoassay, these tests

identified respiratory antigens in large numbers of clinical specimens.
Record Date Created: 19890901

5/7/51
DIALOG(R)File 155:MEDLINE(R)
05611200 89241256 PMID: 3073406
[Comparison between immunofluorescence and immunoenzymatic assay for the rapid diagnosis of the respiratory syncytial virus in nasopharyngeal secretions]
Comparacion entre la inmunofluorescencia y el ensayo inmunoenzimatico para el diagnostico rapido del virus respiratorio sincicial en secreciones nasofaringeas.
Chiparelli H; Russi JC; Martorell E; Arbiza JR; Canepa E; Hortal M
Departamento de Laboratorios, Ministerio de Salud Publica, Montevideo, Uruguay.
Revista Argentina de microbiologia (ARGENTINA) Oct-Dec 1988, 20 (4) p201-4, ISSN 0325-7541 Journal Code: QZ8
Languages: SPANISH
Document type: Journal Article
Record type: Completed
An enzyme immunoassay, RSV-EIA Abbot, was evaluated by comparison with indirect immunofluorescence. Nasopharyngeal secretions obtained from 95 infants and young children with acute respiratory infections were examined for the presence of respiratory syncytial virus antigens with both methods. Specimens were stored at -70 degrees C before being tested by EIA. Out of 60 samples positive by indirect immunofluorescence, 46 were also positive by RSV-EIA (sensitivity 78.7%) and 34 out of 35 immunofluorescence negative specimens were negative by RSV-EIA (specificity 97.1%). Therefore, the EIA appears to be an acceptable test for the rapid detection of RSV as an alternative for indirect immunofluorescence.
Record Date Created: 19890622

5/7/52
DIALOG(R)File 155:MEDLINE(R)
05596140 89029661 PMID: 3053011
Comparison of the Abbott and Ortho enzyme immunoassays and cell culture for the detection of respiratory syncytial virus in nasopharyngeal specimens.
Christensen ML; Flanders R
Department of Pathology, Northwestern University Medical School, Chicago, IL.
Diagnostic microbiology and infectious disease (UNITED STATES) Apr 1988 , 9 (4) p245-50, ISSN 0732-8893 Journal Code: DMI
Languages: ENGLISH
Document type: Journal Article
Record type: Completed
A comparison of the Abbott Laboratories and the Ortho Diagnostic Systems Respiratory Syncytial Virus (RSV) Enzyme Immunoassays (EIA) and HEp-2 cell culture for the detection of RSV in 81 nasopharyngeal (NP) specimens from pediatric patients with lower respiratory tract infection was carried out. The sensitivity and specificity of the Abbott test compared to confirmed infection was 92.3% and 100.0%, respectively. The sensitivity and specificity of the Ortho test was 87.5% and 80.3%, respectively. We found the Abbott EIA test to be sensitive, specific, rapid, and easy to perform.
Record Date Created: 19881129

5/7/53
DIALOG(R)File 155:MEDLINE(R)
05566185 88257378 PMID: 3290243
Detection of respiratory syncytial virus antigen in nasopharyngeal secretions by Abbott Diagnostics enzyme immunoassay.
Masters HB; Bate BJ; Wren C; Lauer BA
Diagnostic Virology Laboratory, University of Colorado School of Medicine, Denver 80262.
Journal of clinical microbiology (UNITED STATES) Jun 1988, 26 (6) p1103-5, ISSN 0095-1137 Journal Code: HSH
Languages: ENGLISH
Document type: Journal Article
Record type: Completed
We compared a rapid respiratory syncytial virus (RSV) antigen enzyme immunoassay (EIA) (Abbott Diagnostics, North Chicago, Ill.) with virus culture and with the indirect fluorescent-antibody test (FAT) by using nasopharyngeal washings from children with suspected RSV pneumonia or bronchiolitis. Fresh washings were used in all three tests. Specimens were inoculated into HEp-2 cells and human embryonic lung fibroblasts and observed for cytopathic effect. Cells in the centrifuged sediments of the nasal washes were examined for typical cytoplasmic fluorescence of RSV by FAT. The EIA cutoff was an optical density (OD) at 492 nm that was greater than the mean OD of the negative controls plus 0.1. An OD within +20% of the cutoff was considered borderline, and these specimens were retested. Of 289 specimens, 118 (41%) were positive by culture, 150 (52%) were positive by FAT, and 154 (53%) were positive by EIA. Eight borderline EIAs were all negative when the specimens were retested after storage at -70 degrees C. Of 17 specimens positive by EIA but negative by culture and FAT, 9 were blocked in a competitive EIA, indicating that they were true-positives and that the culture and FAT were falsely negative. The sensitivity, specificity, and predictive value (positive) of the EIA versus culture, FAT, or blocking assay were 90, 94, and 95%, respectively. We conclude that the Abbott RSV antigen EIA is highly sensitive and specific.
Record Date Created: 19880802

5/7/54
DIALOG(R)File 155:MEDLINE(R)
05493701 90120198 PMID: 2558598

The development of a novel immunoassay amplification system and its use in viral detection.
Schulte T; Mize P; Hoke R; McLaurin D; Hopkins A; Reardon J
Becton Dickinson Research Center, Research Triangle Park, North Carolina 27709.
Annales de biologie clinique (FRANCE) 1989, 47 (9) p535-40, ISSN 0003-3898 Journal Code: 4ZS
Languages: ENGLISH
Document type: Journal Article
Record type: Completed
A novel amplification system has been developed for the detection of free or antibody-conjugated alkaline phosphatase. The amplification system provides a 100 fold enhancement in the detection of the enzyme, compared to direct detection with chromogenic substrates. The key to the amplification system is the dephosphorylation of a potent phosphorylated inhibitor, and the visualization of this inhibitor using a second, indicator, reaction. This system is shown to provide increased sensitivity for immunoassays detecting either herpes simplex virus or respiratory syncytial virus in clinical samples. In addition, this general concept for amplification may be applicable to a variety of other hydrolytic enzymes, and is demonstrated for the enhanced detection of beta-galactosidase.
Record Date Created: 19900216

5/7/55
DIALOG(R)File 155:MEDLINE(R)
05458977 91175967 PMID: 2488346
Detection of bovine respiratory syncytial virus using a heterologous antigen-capture enzyme immunoassay.
Osorio FA; Anderson GA; Sanders J; Grotelueschen D
Department of Veterinary Sciences, University of Nebraska-Lincoln 68583-0905.
Journal of veterinary diagnostic investigation (UNITED STATES) Jul 1989 , 1 (3) p210-4, ISSN 1040-6387 Journal Code: A2D
Languages: ENGLISH
Document type: Journal Article
Record type: Completed
Based on the marked antigenic similarities that exist between antigens of the human and bovine strains of respiratory syncytial virus (RSV), an enzyme immunoassay (EIA) designed to detect human RSV was used to detect bovine RSV. The commercial test kit (RSV EIA) consists of a solid phase (beads) coated with a capture antiserum prepared against the Long strain of human RSV. The RSV EIA test was compared with the method of inoculation of cell cultures and fluorescent antibody (FA) staining of lung tissue for the detection of bovine RSV. Using a cell culture-propagated stock of strain 375 of bovine RSV, the threshold of sensitivity of the EIA test for the cattle strain of RSV was determined to be less than or equal to 10(2.3) CCID50/ml. In addition, RSV EIA detected the bovine RSV in nasal samples obtained from 3 experimentally inoculated cattle. The RSV EIA exhibited a sensitivity of greater than or equal to 80% during the period that shedding of infectious virus took place. All of the bovine RSV FA-positive lung samples (n = 37) were positive by the RSV EIA. Twenty-six of the remaining 214 bovine RSV FA-negative lung samples were positive by the RSV EIA. The RSV EIA was also used to test 137 nasal swabs obtained from cases of bovine respiratory disease. Of these, 38 tested positive by RSV EIA. All samples that tested positive by EIA were confirmed by blocking assays using hyperimmune serum anti-bovine RSV and a pool of monoclonal antibodies specific for that virus.
Record Date Created: 19910502

5/7/56
DIALOG(R)File 155:MEDLINE(R)
05435194 90174823 PMID: 2696927
Rapid detection of respiratory syncytial virus by a biotin-enhanced immunoassay: test performance by laboratory technologists and housestaff.
Subbarao EK; Dietrich MC; De Sierra TM; Black CJ; Super DM; Thomas F; Kumar ML
Department of Pediatrics, Case Western Reserve University, Cleveland Metropolitan General Hospital, OH 44109.
Pediatric infectious disease journal (UNITED STATES) Dec 1989, 8 (12) p865-9, ISSN 0891-3668 Journal Code: OXJ
Languages: ENGLISH
Document type: Journal Article
Record type: Completed
A biotin-enhanced enzyme immunoassay (EIA) for respiratory syncytial virus (RSV) antigen detection (TESTPACK RSV) was prospectively compared with virus isolation in cell culture and immunofluorescence. Of 156 nasopharyngeal swab specimens from infants with respiratory symptoms, 81 (52%) yielded RSV in culture. Compared with culture the sensitivity of the EIA was 95% and specificity was 92%; the specificity increased to 97% with a blocking assay. Compared with immunofluorescence the sensitivity of EIA was 92% and specificity was 93%. In order to assess the performance of TESTPACK RSV as a bedside test, nasopharyngeal swabs from 49 children were tested by EIA at the bedside by housestaff and by immunofluorescence in the laboratory; the sensitivity of the EIA was lower (78%) while specificity remained high (95%). Inclusion of older children may have resulted in diminished sensitivity. The TESTPACK RSV is a simple, rapid test that performs well and is easily adaptable to an office setting. Further evaluation of the test in older children may be required.
Record Date Created: 19900402

5/7/57
DIALOG(R)File 155:MEDLINE(R)
05411973 89327455 PMID: 2666434
Evaluation of the Abbott TESTPACK RSV enzyme immunoassay for detection of

respiratory syncytial virus in nasopharyngeal swab specimens.
Swierkosz EM; Flanders R; Melvin L; Miller JD; Kline MW
Department of Pediatrics/Adolescent Medicine, St. Louis University School of Medicine, Missouri.
Journal of clinical microbiology (UNITED STATES) Jun 1989, 27 (6) p1151-4, ISSN 0095-1137 Journal Code: HSH
Languages: ENGLISH
Document type: Journal Article
Record type: Completed
The Abbott TESTPACK RSV assay (Abbott Laboratories, North Chicago, Ill.), a rapid (20-min) enzyme immunoassay, was compared with culture and direct immunofluorescence (DFA) of nasopharyngeal cells for the detection of respiratory syncytial virus (RSV) in nasopharyngeal swab specimens. Nasopharyngeal swab specimens, collected from 234 infants, were placed in viral transport medium. Portions of specimen in transport medium were used for each test. Of 234 specimens, 70 (30%) were culture positive, 103 (44%) were DFA positive, 107 (46%) were culture or DFA positive, and 112 (48%) were TESTPACK RSV positive. Of 19 specimens positive by TESTPACK RSV but negative by culture or DFA, 15 were positive by the blocking assay. A total of 122 specimens were culture, DFA, or blocking assay positive; TESTPACK RSV detected 108 specimens (sensitivity, 89%). The specificity, positive predictive value, and negative predictive value of TESTPACK RSV as compared with those of culture, DFA, and the blocking assay were 96, 96, and 89%, respectively. By comparison, the sensitivity, specificity, positive predictive value, and negative predictive value of combined culture and DFA were 88, 100, 100, and 88%, respectively. TESTPACK RSV is a rapid and reliable enzyme immunoassay for the direct detection of RSV antigen in nasopharyngeal swab specimens.
Record Date Created: 19890901

5/7/58
DIALOG(R)File 155:MEDLINE(R)
05163630 87195399 PMID: 3553236
Comparison of three rapid diagnostic techniques for detection of respiratory syncytial virus from nasal wash specimens.
Chonmaitree T; Bessette-Henderson BJ; Hepler RE; Lucia HL
Journal of clinical microbiology (UNITED STATES) Apr 1987, 25 (4) p746-7, ISSN 0095-1137 Journal Code: HSH
Languages: ENGLISH
Document type: Journal Article
Record type: Completed
We report results of three rapid tests for respiratory syncytial virus antigen detection. An immunofluorescence assay using commercial antibody and two commercial enzyme immunoassays (Ortho Diagnostics, Inc., Raritan, N.J., and Abbott Laboratories, North Chicago, Ill.) were applied to 199 nasal wash specimens. The Abbott enzyme immunoassay was the most sensitive technique, with a sensitivity of 93.8%. The specificities of the three techniques were comparable and greater than 95%. The availability of reliable rapid diagnostic techniques will allow for better care of infants with severe respiratory syncytial virus infection.
Record Date Created: 19870602
? ds

Set Items Description
S1 6545 RSV OR RESPIRATORY(W)SYNCYTIAL
S2 298573 SENSITIVITY
S3 349 S1 AND S2
S4 34212 IMMUNOASSAY?
S5 60 S3 AND S4
? s pfu or cfu
1893 PFU
14490 CFU
S6 16349 PFU OR CFU
? s s6 and s4 and s1
16349 S6
34212 S4
6545 S1
S7 1 S6 AND S4 AND S1
? t s7/7

7/7/1
DIALOG(R)File 155:MEDLINE(R)
05941681 89359846 PMID: 2671029
Detection of respiratory syncytial virus in nasopharyngeal secretions by DNA-RNA hybridization.
Van Dyke RB; Murphy-Corb M
Department of Pediatrics, Tulane University, New Orleans, Louisiana 70112.
Journal of clinical microbiology (UNITED STATES) Aug 1989, 27 (8) p1739-43, ISSN 0095-1137 Journal Code: HSH
Contract/Grant No.: 507RR05377, RR, NCRR
Languages: ENGLISH
Document type: Journal Article
Record type: Completed
We have developed an RNA-cDNA hybridization assay for the detection of respiratory syncytial virus (RSV) RNA in nasopharyngeal samples. We chose to use as probe a cDNA complementary to the nucleocapsid protein gene of RSV, integrated into the plasmid vector pBR322. The lower limit of sensitivity of the assay is 8.2 X 10(2) PFU of the Long strain of RSV. In throat washes with added cell-free virus, the assay can detect 3.3 X 10(3) PFU of RSV. Respiratory secretions were collected from a group of 104 infants in New Orleans, and 73 of the samples were tested for RSV by immunofluorescence (IF). All were then frozen at -70 degrees C for later testing by hybridization, and 67 were tested for RSV antigens by enzyme

immunoassay (EIA). A second set of respiratory secretions from 48 infants in Denver were cultured for virus, assayed for RSV antigen by EIA, and then frozen for later testing by hybridization. For those samples on which IF was performed, hybridization, compared with IF, had a sensitivity of 49% and a specificity of 66%. For samples tested by EIA, hybridization had a sensitivity of 60% and a specificity of 81% compared with EIA. Compared with virus isolation, hybridization assay had a sensitivity of 73% and a specificity of 92%. With clinical samples, the sensitivity and specificity of the assay were improved with the addition of a control blot, which was hybridized to the plasmid vector (pBR322). The performance of the hybridization assay can be expected to improve when the assay is used with fresh clinical material rather than frozen samples.

Record Date Created: 19891012

? log hold

05mar02 13:01:14 User208669 Session D1974.2

$7.72 2.414 DialUnits File155

$0.00 60 Type(s) in Format 6

$7.56 36 Type(s) in Format 7

$7.56 96 Types

$15.28 Estimated cost File155

$0.66 TYMNET

$15.94 Estimated cost this search

$16.31 Estimated total session cost 2.514 DialUnits

Logoff: level 02.02.11 D 13:01:15

Cost is in DialUnits
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19dec02 11:53:34 User208669 Session D2175.1
$0.33 0.095 DialUnits File1
$0.33 Estimated cost File1
$0.01 TELNET
$0.34 Estimated cost this search
$0.34 Estimated total session cost 0.095 DialUnits

SYSTEM:OS - DIALOG OneSearch
File 155:MEDLINE(R) 1966-2002/Nov W3
*File 155: For updating information please see Help News155. Alert feature enhanced with customized scheduling. See HELP ALERT.
File 357:Derwent Biotech Res. _1982-2002/Dec W3
(c) 2002 Thomson Derwent & ISI
*File 357: File is now current. See HELP NEWS 357.
Alert feature enhanced for multiple files, etc. See HELP ALERT.

Set Items Description
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? s immunochromatog?
S1 334 IMMUNOCHROMATOG?
? s rsv or syncytial
4088 RSV
7366 SYNCYTIAL
S2 9234 RSV OR SYNCYTIAL
? s s1 and s2
334 S1
9234 S2
S3 0 S1 AND S2
? s lateral and s3
102817 LATERAL
0 S3
S4 0 LATERAL AND S3
? s testpack
S5 85 TESTPACK
? s s5 and s2
85 S5
9234 S2
S6 22 S5 AND S2
? rd
...completed examining records
S7 22 RD (unique items)
? t s6/7/1 3 4 6-8 10-15 17-22
6/7/1 (Item 1 from file: 155)
DIALOG(R)File 155:MEDLINE(R)
13447533 22156508 PMID: 12166793

Test characteristics of the respiratory syncytial virus enzyme-linked immunoabsorbent assay in febrile infants < or = 60 days of age.
Dayan Peter; Ahmad Faiz; Urtecho Jacqueline; Novick Michael; Dixon Patricia; Levine Debbie; Miller Steven
Children's Hospital of New York, Columbia University College of Physicians and Surgeons, New York, USA.
Clinical pediatrics (United States) Jul-Aug 2002, 41 (6) p415-8, ISSN 0009-9228 Journal Code: 0372606
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: In Process
The test characteristics of rapid tests for respiratory syncytial virus (RSV) in infants may differ from older children secondary to a lower likelihood of previous illness with RSV. Our main goal was to establish the test characteristics of the RSV Abbott Testpack (TP) enzyme-linked immunoabsorbent assay (EIA) in febrile infants < or = 60 days of age. Our secondary goal was to determine the likelihood of RSV given a particular clinical syndrome and a negative or positive EIA. A prospective sample of infants with a temperature > or = 38.0 degrees C was evaluated during 2 successive RSV seasons. Conventional tissue and shell vial viral cultures were utilized as the reference standard. The RSV Abbott Testpack EIA had a sensitivity of 75% (95% CI 60-90%), a specificity of 98% (95% CI 96-100%), a positive predictive value of 89% (95% CI 77-100%), a negative predictive value of 95% (95% CI 91-98%), a likelihood ratio for a positive test of 35.5 (95% CI 11.4-110.7), and a likelihood ratio for a negative test of 0.26 (95% CI 0.14-0.47). Even with a negative EIA, patients with lower and upper respiratory tract illness still had a 22.3% and 5.5% chance of harboring RSV, respectively. The RSV Abbott Testpack is a useful diagnostic tool in the detection of RSV in febrile infants but has limitations. During months typically associated with RSV disease, a positive RSV TP indicates a high likelihood of illness, but clinicians should be wary of false negatives.
Record Date Created: 20020808

Not enough info

6/7/3 (Item 3 from file: 155)
DIALOG(R)File 155:MEDLINE(R)
12542130 21417414 PMID: 11526141
Reliable detection of respiratory syncytial virus infection in children for adequate hospital infection control management.
Abels S; Nadal D; Stroehle A; Bossart W
Institute of Medical Virology, University of Zurich, Zurich, Switzerland.
Journal of clinical microbiology (United States) Sep 2001, 39 (9) p3135-9, ISSN 0095-1137 Journal Code: 7505564
Document type: Evaluation Studies; Journal Article
Languages: ENGLISH
Main Citation Owner: NLM

Record type: Completed

By using a rapid test for respiratory syncytial virus (RSV) detection (Abbott TestPack RSV), a number of patients were observed, showing repeatedly positive results over a period of up to 10 weeks. A prospective study was initiated to compare the rapid test with an antigen capture enzyme immunoassay (EIA) and a nested reverse transcriptase PCR (RT-PCR) protocol for detection of RSV serotypes A and B. Only respiratory samples from children exhibiting the prolonged presence of RSV (> or =5 days) as determined by the rapid test were considered. A total of 134 specimens from 24 children was investigated by antigen capture EIA and nested RT-PCR. Using RT-PCR as the reference method, we determined the RSV rapid test to have a specificity of 63% and a sensitivity of 66% and the antigen capture EIA to have a specificity of 96% and a sensitivity of 69% for acute-phase samples and the homologous virus serotype A. In 7 (29%) of 24 patients, the positive results of the RSV rapid test could not be confirmed by either nested RT-PCR or antigen capture EIA. In these seven patients a variety of other respiratory viruses were detected. For general screening the RSV rapid test was found to be a reasonable tool to get quick results. However, its lack of specificity in some patients requires confirmation by additional tests to rule out false-positive results and/or detection of other respiratory viruses.

Record Date Created: 20010829

6/7/4 (Item 4 from file: 155)
DIALOG(R)File 155:MEDLINE(R)
11235503 21257978 PMID: 11358472

Evaluation of an acute point-of-care system screening for respiratory syncytial virus infection.

Mackie P L; Joannidis P A; Beattie J

Department of Microbiology, Yorkhill NHS Trust, Glasgow, UK. virology@supanet.com

Journal of hospital infection (England) May 2001, 48 (1) p66-71, ISSN 0195-6701 Journal Code: 8007166

Document type: Journal Article; Validation Studies

Languages: ENGLISH

Main Citation Owner: NLM

Record type: Completed

There continues to be a significant risk of children contracting hospital-acquired infections caused by respiratory syncytial virus (RSV). In order to provide 24 h screening, we examined a point-of-care system (near-patient testing) for use by non-laboratory healthcare workers (HCWs) in a short stay unit adjoining the accident and emergency department of a large paediatric hospital. Three studies were conducted over consecutive winter epidemics, in which 2193 nasopharyngeal aspirates were obtained from children < 2 years old. An average of 23 trained HCWs tested aspirates with the Abbott TESTPACK(R) RSV assay. Material was sent to the virology laboratory for examination for RSV and other respiratory viruses by direct immunofluorescence. The mean performance characteristics of near patient testing were sensitivity 90%, specificity 92%, positive predictive value 92% and negative predictive value 92%. This was acceptable for clinical purposes. The near-patient testing provided a rapid answer and ensured that infants could be segregated according to infection status. Early antiviral treatment could be commenced and needless antibiotics avoided. During the study the hospital-acquired infection rate was the lowest recorded, although this may have been influenced by national trends and lower rates of inpatient care for infants with bronchiolitis.

Record Date Created: 20010518

6/7/6 (Item 6 from file: 155)
DIALOG(R)File 155:MEDLINE(R)
08896550 96253006 PMID: 8650634

[Quick diagnosis of respiratory syncytial virus infection]

Hurtigdiagnostikk av respiratorisk syncytialt virus-infeksjon.

Kanestrom A; Myrmel H

Avdeling for mikrobiologi og immunologi, Haukeland Sykehus, Bergen.

Tidsskrift for den Norske laegeforening (NORWAY) May 10 1996, 116 (12) p1461-3, ISSN 0029-2001 Journal Code: 0413423

Document type: Journal Article ; English Abstract

Languages: NORWEGIAN

Main Citation Owner: NLM

Record type: Completed

Respiratory syncytial virus (RSV) is a frequent cause of respiratory tract infections in children, and the infection spreads rapidly in hospitals. It is therefore important to diagnose the disease quickly. We have examined two quick tests for detecting RSV-antigen in nasopharyngeal aspirates: Directigen RSV (Becton Dickinson, MD, USA) and TestPack RSV (Abbott Laboratories, Chicago, IL, USA). Both tests are based on the enzyme immunoassay (EIA) principle. The results were compared with a method using direct immunofluorescence. When the immunofluorescence test was used as the standard, the sensitivities of Directigen and TestPack were 83 and 74%, and the specificities 84 and 100%, respectively. Both of the EIA-tests had a lower sensitivity than desired, and Directigen gave some uninterpretable results. The tests may be considered for use in small laboratories with limited facilities or as a supplement to other diagnostic methods.

Record Date Created: 19960725

6/7/7 (Item 7 from file: 155)
DIALOG(R)File 155:MEDLINE(R)
08651989 96028032 PMID: 7546643

Evaluation of Abbott TestPack RSV and an in-house RSV ELISA for detection of respiratory syncytial virus in respiratory tract aspirates.

Obel N; Andersen H K; Jensen I P; Mordhorst C H

Department of Virology, Statens Seruminstitut, Copenhagen, Denmark.

APMIS : acta pathologica, microbiologica, et immunologica Scandinavica (DENMARK) Jun 1995, 103 (6) p416-8, ISSN 0903-4641 Journal Code: 8803400
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: Completed
The Abbott TestPack RSV was compared with an in-house RSV enzyme-linked immunosorbent assay (ELISA) for detection of respiratory syncytial virus (RSV) antigen. Nasopharyngeal specimens were obtained from 121 inpatients. RSV antigen was detected in 46 specimens by the Abbott TestPack, 42 of these being confirmed by the in-house RSV ELISA. Of the 75 specimens tested negative in the Abbott TestPack RSV, one was found positive by the in-house RSV ELISA. The sensitivity and specificity of the Abbott TestPack RSV versus the RSV ELISA were 98% and 95% respectively.
Record Date Created: 19951114

6/7/8 (Item 8 from file: 155)
DIALOG(R)File 155:MEDLINE(R)
08620997 95378471 PMID: 7650206
Comparison of rapid immunofluorescence procedure with TestPack RSV and Directigen FLU-A for diagnosis of respiratory syncytial virus and influenza A virus.
Todd S J; Minnich L; Waner J L
Children's Hospital of Oklahoma, Oklahoma City 73190-3030, USA.
Journal of clinical microbiology (UNITED STATES) Jun 1995, 33 (6) p1650-1, ISSN 0095-1137 Journal Code: 7505564
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: Completed
A rapid immunofluorescence format requiring 20 min for completion was as effective as conventional indirect and direct immunofluorescence procedures for detecting respiratory syncytial virus and influenza A virus antigens in clinical specimens. Rapid immunofluorescence was more sensitive than TestPack RSV and comparable to Directigen FLU-A immunosorbent assays, which require 20 min for completion.
Record Date Created: 19950922

6/7/10 (Item 10 from file: 155)
DIALOG(R)File 155:MEDLINE(R)
08115034 94247977 PMID: 8190574
Evaluation of a rapid diagnostic test for respiratory syncytial virus (RSV): potential for bedside diagnosis.
Krilov L R; Lipson S M; Barone S R; Kaplan M H; Ciamician Z; Harkness S H
Department of Pediatrics, North Shore University Hospital-Cornell University Medical College, Manhasset, NY 11021.
Pediatrics (UNITED STATES) Jun 1994, 93 (6 Pt 1) p903-6, ISSN 0031-4005 Journal Code: 0376422
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: Completed
OBJECTIVE. Rapid detection of respiratory syncytial virus (RSV) infection can assist clinicians in decisions regarding antiviral therapy with ribavirin as well as instituting infection control measures. The Abbott TestPack RSV is a rapid RSV detection immunoassay that can be performed on respiratory secretions in 20 to 30 minutes without special laboratory equipment. The purpose of this study was to evaluate housestaff performance of the TestPack RSV at bedside as compared with laboratory testing of aliquots of the same specimen by tissue culture inoculation, direct fluorescent antibody (DFA) testing and TestPack RSV. METHODS. During the 1991 through 1992 RSV season, 137 nasopharyngeal aspirates or washes obtained from pediatric patients < 4 years of age suffering from acute respiratory disease were assayed by the Food and Drug Administration-approved TestPack RSV as well as conventional tube culture and DFA testing. RESULTS. 66 of 137 (48%) specimens were positive for RSV as defined by: isolation and DFA-positive (n = 48) and DFA testing positive with negative culture (n = 18); blocking assay experiments using TestPack RSV confirmed culture-negative DFA-positive specimens as positive in 8/8 instances in which material for retesting was available. Using these definitions, the sensitivity and specificity for the assays were: housestaff TestPack RSV: 92%, 93%; laboratory TestPack RSV: 97%, 98%; virus isolation: 72%, 100%. CONCLUSION. From these data, it appears that the TestPack RSV EIA in the field setting is reliable, although laboratory confirmation of results is important.
Record Date Created: 19940623

6/7/11 (Item 11 from file: 155)
DIALOG(R)File 155:MEDLINE(R)
07875658 94013376 PMID: 8408545
Comparison of rapid diagnostic techniques for respiratory syncytial and influenza A virus respiratory infections in young children.
Dominguez E A; Taber L H; Couch R B
Department of Microbiology, Baylor College of Medicine, Houston, Texas 77030.
Journal of clinical microbiology (UNITED STATES) Sep 1993, 31 (9) p2286-90, ISSN 0095-1137 Journal Code: 7505564
Contract/Grant No.: NO1-AI-15103; AI; NIAID
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: Completed
We performed virus isolation tests for respiratory viruses on combined

nasal wash-throat swab specimens collected from infants and children with acute respiratory illnesses presenting to a hospital clinic during a 3-month period of concurrent epidemics of respiratory syncytial virus (RSV) and influenza A virus (Flu A) infections. Virus isolation results were used to assess the utility of commercially available rapid diagnostic kits for these two viruses. The kits employed direct immunofluorescence (IF) of cells (Imagen for RSV and Flu A), indirect IF of cells (Baxter Bartels Microscan), and enzyme immunoassay (EIA) (Becton Dickinson Directigen for RSV and Flu A and Abbott TestPack for RSV). All testing was completed on 81 specimens from 80 subjects. Of the 81 specimens, 53 (65%) yielded a virus: RSV, 28%; Flu A, 25%; rhinovirus, 6%; and enterovirus, cytomegalovirus, herpes simplex virus, and adenovirus, 2 to 4% each. Among the tests, Bartels Microscan and Directigen Flu-A exhibited the highest sensitivities (87 and 75%) and efficiencies (94 and 94%) for RSV and Flu A, respectively. All the tests exhibited high specificity. Thus, optimal detection of RSV and Flu A among infants and children who presented to a hospital clinic required two different detection methods (IF and enzyme immunoassay) and kits from two different companies (Baxter [Bartels Microscan] and Becton Dickinson [Directigen]).

Record Date Created: 19931102

6/7/12 (Item 12 from file: 155)
DIALOG(R)File 155:MEDLINE(R)
07750165 93273955 PMID: 8501239

Comparison of the VIDAS RSV assay and the Abbott Testpack RSV with direct immunofluorescence for detection of respiratory syncytial virus in nasopharyngeal aspirates.

Miller H; Milk R; Diaz-Mitoma F

Regional Virology Laboratory, Children's Hospital of Eastern Ontario, Ottawa, Canada.

Journal of clinical microbiology (UNITED STATES) May 1993, 31 (5) p1336-8, ISSN 0095-1137 Journal Code: 7505564

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: Completed

The sensitivity and accuracy of the VIDAS RSV assay in testing fresh specimens were 82.7 and 87.1%, respectively, whereas specimens previously frozen at -70 degrees C gave a sensitivity of 96.2% and an accuracy of 95.4%. The sensitivity and accuracy of Abbott Testpack RSV were 92.6 and 91.3% for fresh specimens and 86.8 and 88.1% for frozen specimens. The advantages and drawbacks of the two assays are discussed.

Record Date Created: 19930629

6/7/13 (Item 13 from file: 155)
DIALOG(R)File 155:MEDLINE(R)
07724055 93247855 PMID: 8483627

The Rhino-Probe nasal curette for detecting respiratory syncytial virus in children.

Waecker N J; Shope T R; Weber P A; Buck M L; Domingo R C; Hooper D G

Department of Pediatrics, Naval Hospital, San Diego, CA 92134-5000.

Pediatric infectious disease journal (UNITED STATES) Apr 1993, 12 (4) p326-9, ISSN 0891-3668 Journal Code: 8701858

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: Completed

During two outbreaks of respiratory syncytial virus (RSV) infection, 68 children with acute respiratory illnesses were cultured for RSV using a Rhino-Probe (RP) nasal curette and either a nasopharyngeal (NP) swab or a nasal wash (NW). In the first outbreak isolations of RSV by the RP nasal curette and NP swab methods were compared. RSV was cultured from 25 of 42 (60%) subjects using the RP nasal curette and from 20 of 42 (48%) subjects using the NP swab. In the second outbreak the RP nasal curette and the NW collection techniques were compared. RSV was isolated from 15 of 26 (58%) children evaluated. RSV was cultured from 14 of 15 (93%) patients by RP and 13 of 15 (87%) when using NW. In the group of culture-positive subjects, the TESTPACK RSV rapid antigen test was positive in 10 of 15 (67%) using the RP and in 6 of 15 (40%) using the NW. Like the NP swab the RP nasal curette was simple, noninvasive and relatively inexpensive, yet it was as sensitive as the NW for detection of RSV.

Record Date Created: 19930528

6/7/14 (Item 14 from file: 155)
DIALOG(R)File 155:MEDLINE(R)
07698711 93223390 PMID: 8467621

Evaluation of Abbott TestPack RSV for the diagnosis of respiratory syncytial virus infections.

Olsen M A; Shuck K M; Sambol A R

Department of Medical Microbiology, Creighton University School of Medicine, Omaha, Nebraska.

Diagnostic microbiology and infectious disease (UNITED STATES) Feb 1993, 16 (2) p105-9, ISSN 0732-8893 Journal Code: 8305899

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: Completed

Abbott TestPack RSV, a 20-minute enzyme immunoassay, is available for the rapid diagnosis of respiratory syncytial virus (RSV) infections. We have compared TestPack with a "gold standard" method of virus isolation in traditional tube cultures and shell vials to determine the sensitivity and specificity of this rapid method. Respiratory specimens were collected prospectively from 402 children and assayed by the rapid antigen detection method and isolation in culture. Virus was isolated by inoculation of

specimen in a total of eight tubes and 2-3 shell vials. Isolation of RSV was confirmed by characteristic cytopathic effect and immunofluorescence using monoclonal antibodies to RSV. Of the 402 specimens tested, there were only 18 discrepant results (seven TestPack-positive, culture-negative, and 11 TestPack-negative, culture-positive specimens). The sensitivity of TestPack RSV versus culture was 93.6% (162 of 173) and the specificity was 97.0% (222 of 229). Using a very rigorous culture system, we have obtained high values for the sensitivity and specificity of TestPack RSV. This assay is an excellent method for the rapid diagnosis of RSV infections in young children.

Record Date Created: 19930512

6/7/15 (Item 15 from file: 155)
DIALOG(R)File 155:MEDLINE(R)
07522857 93049369 PMID: 1425717

Evaluation of three rapid enzyme immunoassays and cell culture for detection of respiratory syncytial virus.

Mendoza J; Rojas A; Navarro J M; Plata C; de la Rosa M

Servicio de Microbiologia, Hospital Regional de Especialidades Virgen de las Nieves, Granada, Spain.

European journal of clinical microbiology & infectious diseases : official publication of the European Society of Clinical Microbiology (GERMANY) May 1992, 11 (5) p452-4, ISSN 0934-9723 Journal Code: 8804297

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: Completed

Three rapid enzyme immunoassay techniques for the detection of respiratory syncytial virus antigen (Becton Dickinson Directigen RSV, Abbott RSV Testpack and Abbott RSV EIA) and cell culture were evaluated in a total of 250 nasal washings. The sensitivity and specificity were 62% and 76% respectively for Directigen, 64% and 86% for RSV Testpack, and 76% and 81% for RSV EIA, taking cell culture as the reference method. Agreement between cell culture and EIA techniques was 79% (70 positive and 128 negative results). All three EIA techniques gave positive results in 69 samples (52 positive and 17 negative in the cell culture). In 121 samples all three EIA techniques gave negative results (103 negative and 18 positive in the cell culture). Using the cell culture technique 46 strains other than respiratory syncytial virus were isolated.

Record Date Created: 19921203

6/7/17 (Item 17 from file: 155)
DIALOG(R)File 155:MEDLINE(R)
07055720 91365888 PMID: 1890186

Reliability of two new test kits for rapid diagnosis of respiratory syncytial virus infection.

Rothbarth P H; Hermus M C; Schrijnemakers P

Department of Virology, University Hospital Rotterdam, The Netherlands.

Journal of clinical microbiology (UNITED STATES) Apr 1991, 29 (4) p824-6, ISSN 0095-1137 Journal Code: 7505564

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: Completed

Two new rapid enzyme immunoassays (EIAs) for detecting respiratory syncytial virus (RSV), Directigen (Becton Dickinson Microbiology Systems) and TestPack (Abbott Diagnostics) were compared with virus isolation and direct immunofluorescence by using fresh specimens. The sensitivities of both EIAs were low (72 to 73%), but when initial specimens were used, TestPack had a high sensitivity (92%) in contrast to that of Directigen (76%). Because of its high sensitivity and specificity, TestPack can be used for diagnosis of RSV in acute disease.

Record Date Created: 19911015

6/7/18 (Item 18 from file: 155)
DIALOG(R)File 155:MEDLINE(R)
06938063 91245004 PMID: 2037684

Comparison of two rapid methods for detection of respiratory syncytial virus (RSV) (Testpack RSV and ortho RSV ELISA) with direct immunofluorescence and virus isolation for the diagnosis of pediatric RSV infection.

Thomas E E; Book L E

Department of Pathology, Faculty of Medicine, University of British Columbia, Vancouver, Canada.

Journal of clinical microbiology (UNITED STATES) Mar 1991, 29 (3) p632-5, ISSN 0095-1137 Journal Code: 7505564

Document type: Journal Article

Languages: ENGLISH

Main Citation Owner: NLM

Record type: Completed

The ability of two commercial immunoassays to detect respiratory syncytial virus (RSV) in respiratory specimens was evaluated as follows: 152 specimens were tested by TestPack RSV (Abbott), and 72 were tested by Ortho RSV ELISA (Ortho). Test outcomes were compared with those of virus isolation alone, direct immunofluorescence assay (DFA) alone, or virus isolation and/or DFA. TestPack RSV versus virus isolation showed 91% sensitivity, 96% specificity, 93% positive predictive value (PPV), and 95% negative predictive value (NPV). TestPack RSV versus DFA showed 89% sensitivity, 97% specificity, 96% PPV, and 93% NPV. When TestPack RSV performance was compared with that of virus isolation and DFA, the sensitivity was 87% and the specificity was 100%. Ortho RSV ELISA versus virus isolation showed 88% sensitivity, 87% specificity, 79% PPV, and 93% NPV. Ortho RSV ELISA versus DFA showed 91% sensitivity, 88% specificity,

81% PPV and 95% NPV. When Ortho RSV ELISA performance was compared with that of virus isolation and DFA, the sensitivity was 86%, the specificity was 89%, the PPV was 86%, and the NPV was 89%. The accuracy of the TestPack RSV in combination with ease of performance and no need for specialized equipment or special skills make it an attractive alternative to DFA for rapid direct detection of RSV.
Record Date Created: 19910628

6/7/19 (Item 19 from file: 155)
DIALOG(R)File 155:MEDLINE(R)
06641169 90338392 PMID: 2199500
Detection of respiratory syncytial virus antigen in nasal washings by Abbott TestPack enzyme immunoassay.
Wren C G; Bate B J; Masters H B; Lauer B A
University of Colorado School of Medicine, Denver 80262.
Journal of clinical microbiology (UNITED STATES) Jun 1990, 28 (6) p1395-7, ISSN 0095-1137 Journal Code: 7505564
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: Completed
We compared the new Abbott TestPack (TP) respiratory syncytial virus (RSV) enzyme immunoassay (EIA) with cell culture and two commercial RSV EIAs (from Abbott Diagnostics and Kallestad Laboratories) by using split samples of fresh nasal washings from children with suspected RSV disease. Two tubes of HEp-2 cells were inoculated and observed for cytopathic effect for 14 days, and isolates were confirmed by immunofluorescence. The TP EIA was performed by following the manufacturer's instructions. Specimens positive by TP EIA but negative by culture were examined in a competitive inhibition (blocking) assay using the TP EIA, and rabbit anti-RSV serum. Of 218 specimens, 93 were positive by culture, 105 were positive by TP EIA, 80 were positive by the Abbott Diagnostics EIA, and 87 were positive by the Kallestad Laboratories EIA. The sensitivity, specificity, positive predictive value, and negative predictive value of the TP EIA were 92, 86, 81, and 93%, respectively. Of 20 apparently false-positive TP EIAs, 10 of 14 that were positive when retested were neutralized in the blocking assay, indicating that they were truly positive. The recalculated sensitivity, specificity, positive predictive value, and negative predictive value of the TP EIA were 92, 91, 90, and 93%, respectively. We conclude that the TP EIA is easy to perform, rapid (less than 0.5 h), and accurate.
Record Date Created: 19900912

6/7/20 (Item 20 from file: 155)
DIALOG(R)File 155:MEDLINE(R)
06580780 90277802 PMID: 2191003
Evaluation of five methods for respiratory syncytial virus detection.
Halstead D C; Todd S; Fritch G
HealthEast Laboratories, Allentown Hospital-Lehigh Valley Hospital Center, Pennsylvania 18103.
Journal of clinical microbiology (UNITED STATES) May 1990, 28 (5) p1021-5, ISSN 0095-1137 Journal Code: 7505564
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: Completed
A total of 117 nasal aspirates were cultured for respiratory syncytial virus (RSV) and tested for RSV antigen by a direct fluorescent-antibody (DFA) test (Bartels Immunodiagnostic Supplies, Inc., Bellevue, Wash.), the Directigen enzyme immunoassay (EIA; Becton Dickinson Microbiology Systems, Cockeysville, Md.), the TestPack EIA (Abbott Laboratories, North Chicago, Ill.), and RSV EIA (Abbott). Agreement of two of five methods or a positive RSV culture were required to validate a result. A total of 57 of 117 (48.7%) specimens were culture positive in HEp-2 cells, A549 cells, or both. A total of 5 of 117 (4.3%) additional specimens met the criteria of a positive specimen; i.e., 62 of 117 (53.0%) specimens were positive. Results obtained from 77 of 117 (65.8%) specimens were concordant for all five methods. The sensitivities, specificities, and positive and negative predictive values for the culture and DFA methods were 91.9, 100, 100, and 91.7% and 91.9, 96.4, 96.6, and 91.4%, respectively. The sensitivities, specificities, and positive and negative predictive values for the three EIA procedures, Directigen, TestPack, and RSV EIA, were 75.8, 80.0, 81.0, and 74.6%; 93.6, 100, 100, and 93.2%; and 71.0, 100, 100, and 75.3%, respectively. New self-contained EIA configurations and the DFA method offer attractive alternatives to the culture method. Technical simplicity, rapid turnaround time, performance, and cost must all be considered when selecting a system for RSV detection.
Record Date Created: 19900717

6/7/21 (Item 21 from file: 155)
DIALOG(R)File 155:MEDLINE(R) starts 54
06480821 90174823 PMID: 2696927
Rapid detection of respiratory syncytial virus by a biotin-enhanced immunoassay: test performance by laboratory technologists and housestaff.
Subbarao E K; Dietrich M C; De Sierra T M; Black C J; Super D M; Thomas F ; Kumar M L
Department of Pediatrics, Case Western Reserve University, Cleveland Metropolitan General Hospital, OH 44109.
Pediatric infectious disease journal (UNITED STATES) Dec 1989, 8 (12) p865-9, ISSN 0891-3668 Journal Code: 8701858
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: Completed
A biotin-enhanced enzyme immunoassay (EIA) for respiratory syncytial

virus (RSV) antigen detection (TESTPACK RSV) was prospectively compared with virus isolation in cell culture and immunofluorescence. Of 156 nasopharyngeal swab specimens from infants with respiratory symptoms, 81 (52%) yielded RSV in culture. Compared with culture the sensitivity of the EIA was 95% and specificity was 92%; the specificity increased to 97% with a blocking assay. Compared with immunofluorescence the sensitivity of EIA was 92% and specificity was 93%. In order to assess the performance of TESTPACK RSV as a bedside test, nasopharyngeal swabs from 49 children were tested by EIA at the bedside by housestaff and by immunofluorescence in the laboratory; the sensitivity of the EIA was lower (78%) while specificity remained high (95%). Inclusion of older children may have resulted in diminished sensitivity. The TESTPACK RSV is a simple, rapid test that performs well and is easily adaptable to an office setting. Further evaluation of the test in older children may be required.
Record Date Created: 19900402

6/7/22 (Item 22 from file: 155)
DIALOG(R)File 155:MEDLINE(R)
06238789 89327455 PMID: 2666434
Evaluation of the Abbott TESTPACK RSV enzyme immunoassay for detection of respiratory syncytial virus in nasopharyngeal swab specimens.
Swierkosz E M; Flanders R; Melvin L; Miller J D; Kline M W
Department of Pediatrics/Adolescent Medicine, St. Louis University School of Medicine, Missouri.
Journal of clinical microbiology (UNITED STATES) Jun 1989, 27 (6) p1151-4, ISSN 0095-1137 Journal Code: 7505564
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: Completed

The Abbott TESTPACK RSV assay (Abbott Laboratories, North Chicago, Ill.), a rapid (20-min) enzyme immunoassay, was compared with culture and direct immunofluorescence (DFA) of nasopharyngeal cells for the detection of respiratory syncytial virus (RSV) in nasopharyngeal swab specimens. Nasopharyngeal swab specimens, collected from 234 infants, were placed in viral transport medium. Portions of specimen in transport medium were used for each test. Of 234 specimens, 70 (30%) were culture positive, 103 (44%) were DFA positive, 107 (46%) were culture or DFA positive, and 112 (48%) were TESTPACK RSV positive. Of 19 specimens positive by TESTPACK RSV but negative by culture or DFA, 15 were positive by the blocking assay. A total of 122 specimens were culture, DFA, or blocking assay positive; TESTPACK RSV detected 108 specimens (sensitivity, 89%). The specificity, positive predictive value, and negative predictive value of TESTPACK RSV as compared with those of culture, DFA, and the blocking assay were 96, 96, and 89%, respectively. By comparison, the sensitivity, specificity, positive predictive value, and negative predictive value of combined culture and DFA were 88, 100, 100, and 88%, respectively. TESTPACK RSV is a rapid and reliable enzyme immunoassay for the direct detection of RSV antigen in nasopharyngeal swab specimens.
Record Date Created: 19890901
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$0.35 Estimated cost File1
$0.01 TELNET
$0.36 Estimated cost this search
$0.36 Estimated total session cost 0.101 DialUnits

File 155:MEDLINE(R) 1966-2002/Nov W3
*File 155: For updating information please see Help News155. Alert feature enhanced with customized scheduling. See HELP ALERT.

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S1 94777 CYTOKINE?
S2 6951 RSV OR RESPIRATORY(W)SYNCYTIAL
S3 243 S1 AND S2
S4 894540 DT=REVIEW?
S5 24 S3 AND S4
S6 2244688 DETECT? OR DIAGNOS?
S7 53 S6 AND S3
? t s7/7/20 23 15 16 22
7/7/20
DIALOG(R)File 155:MEDLINE(R)
10431111 99418374 PMID: 10489842
Peripheral blood cytokine responses and disease severity in respiratory syncytial virus bronchiolitis.
Bont L; Heijnen C J; Kavelaars A; van Aalderen W M; Brus F; Draaisma J T; Geelen S M; van Vught H J; Kimpen J L
University Hospital for Children and Youth Het Wilhelmina Kinderziekenhuis, Utrecht, The Netherlands.
European respiratory journal : official journal of the European Society for Clinical Respiratory Physiology (DENMARK) Jul 1999, 14 (1) p144-9, ISSN 0903-1936 Journal Code: 8803460
Document type: Clinical Trial; Journal Article; Multicenter Study
Languages: ENGLISH
Main Citation Owner: NLM
Record type: Completed
The role of cellular immunity in disease severity in respiratory syncytial virus (RSV) bronchiolitis is largely unknown. This study investigated the association between disease severity and systemic cytokine responses in hospitalized ventilated and nonventilated RSV bronchiolitis patients. In whole blood cultures stimulated with phytohaemagglutinin (PHA), lymphoproliferative responses and interferon (IFN)-gamma and interleukin (IL)-4 production during acute illness were measured. In addition, plasma cytokines were measured. Measurements were repeated in the convalescent phase, 3-4 weeks after admission. Fifty patients were included. The median age in ventilaled patients was significantly lower than in nonventilated patients (1 versus 4 months, $p<0.05$). In comparison with nonventilated patients, the ventilated patients had significantly lower lymphoproliferative responses and a lower production of IFN-gamma and IL-4. In fact, IFN-gamma and IL-4 production in ventilated patients was almost completely undetectable. Plasma IL-8 levels in ventilated patients were significantly higher than in nonventilated patients. In the convalescent phase, lymphoproliferative and cytokine responses as well as plasma IL-8 levels were normal in both patient groups. Since RSV bronchiolitis is associated with the subsequent development of asthma, the possible skewing of the T-helper (Th1/Th2) cytokine balance was investigated. This was found neither in the acute nor in the convalescent phase. In conclusion, the data indicate that depressed lymphocyte function and elevated plasma interleukin-8 levels are markers of severe disease. It is suggested that age and maturation related immune mechanisms could explain the occurrence of severe respiratory syncytial virus bronchiolitis requiring mechanical ventilation in young infants.
Record Date Created: 19991021

7/7/23
DIALOG(R)File 155:MEDLINE(R)
10115572 99093185 PMID: 9877358
Severity of respiratory syncytial virus disease related to type and genotype of virus and to cytokine values in nasopharyngeal secretions.
Hornsleth A; Klug B; Nir M; Johansen J; Hansen K S; Christensen L S; Larsen L B
Institute of Medical Microbiology and Immunology, University of Copenhagen and Department of Clinical Microbiology, Rigshospitalet, Denmark. A.Hornsleth@immi.ku.dk
Pediatric infectious disease journal (UNITED STATES) Dec 1998, 17 (12) p1114-21, ISSN 0891-3668 Journal Code: 8701858
Document type: Clinical Trial; Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: Completed
BACKGROUND: Investigations concerning the severity of respiratory syncytial virus (RSV) disease as related to (1) RSV type and genotype determined respectively by PCR and restriction enzyme analysis and (2) interleukin 6 (IL-6) and tumor necrosis factor alpha (TNF-alpha) values in samples of nasopharyngeal secretion (NPS) have not been previously reported. METHODS: We prospectively studied 105 RSV infections in the lower respiratory tract of infants and young children admitted to a pediatric department in Copenhagen during three winter seasons, 1993, 1994 and 1995. RSV strains were typed and genotyped, respectively, by PCR and nucleic acid restriction analysis and correlated to the severity of the disease. The

ratio IL-6:TNF-alpha, determined from IL-6- and TNF-alpha values in samples of NPS, was related to the severity of the disease. Concentrations of IL-6 and of TNF-alpha were determined in serum samples taken during 5 weeks after the onset of illness. RESULTS: Type B infections produced more severe disease than did type A infections, as assessed on the length of the hospital stay, use of respiratory support and the presence of an infiltrate on a chest radiograph. This difference was age-related. It was observed in infants 0 to 5 months old, but not in older age groups. Type B genotype B1122 produced more severe disease than type A genotype A2311 in infants 0 to 11 months old. Increased serum concentrations of IL-6 and TNF-alpha were detected in samples taken 1 to 2 days after the onset of illness. Whereas TNF-alpha serum concentrations remained high, IL-6 serum concentrations decreased during the following 3 to 4 weeks. The IL-6:TNF-alpha ratio in samples of NPS was related to the severity of the disease. A high ratio was related to a low severity. CONCLUSIONS: The severity of disease in patients admitted with acute RSV infections can be correlated to the RSV type as determined by PCR, to the RSV genotype as determined by nucleic acid restriction analysis and to the ratio IL-6:TNF-alpha in NPS.
Record Date Created: 19990318

7/7/15
DIALOG(R)File 155:MEDLINE(R)
10913021 20459483 PMID: 11002258
Type 1-like immune response is found in children with respiratory syncytial virus infection regardless of clinical severity.
Brandenburg A H; Kleinjan A; van Het Land B; Moll H A; Timmerman H H; de Swart R L; Neijens H J; Fokkens W; Osterhaus A D
Institute of Virology, Erasmus University Rotterdam, The Netherlands.
Journal of medical virology (UNITED STATES) Oct 2000, 62 (2) p267-77 , ISSN 0146-6615 Journal Code: 7705876
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: Completed
The immunological response of infants younger than six months to infection with respiratory syncytial virus (RSV) was studied in relation to clinical severity. IL-6 and IL-8 were found more frequently and at higher levels in the plasma samples of more severely ill patients and no significant differences were found in the levels of cytokines differentiating between Type 1 and Type 2 responses. Cellular infiltrates in nasopharyngeal washings consisted mainly of polymorphonuclear granulocytes and monocytes. Eosinophils, IgE positive cells and tryptase positive cells were found sporadically. Analyses of RSV stimulated T cell cultures established from peripheral blood mononuclear cells, for intracellular and secreted cytokines showed that, irrespective of clinical severity, the responses were dominated by the production of IFN-gamma, and that only low levels of IL-4 and IL-10 were detectable. Collectively these data do not indicate an association between clinical severity and a Type 2-like T cell response. Copyright 2000 Wiley-Liss, Inc.
Record Date Created: 20001101

7/7/16
DIALOG(R)File 155:MEDLINE(R)
10888440 20414316 PMID: 10959758
Immunology of respiratory syncytial virus infection: eosinophils, cytokines, chemokines and asthma.
Welliver R C
Department of Pediatrics, State University of New York at Buffalo and Children's Hospital of Buffalo, USA. rwelliver@upa.chob.edu
Pediatric infectious disease journal (UNITED STATES) Aug 2000, 19 (8) p780-3; discussion 784-5; 811-3, ISSN 0891-3668 Journal Code: 8701858
Document type: Journal Article; Review; Review, Tutorial
Languages: ENGLISH
Main Citation Owner: NLM
Record type: Completed
(30 Refs.)
Record Date Created: 20001221

7/7/22
DIALOG(R)File 155:MEDLINE(R)
10179258 99156469 PMID: 10048682
Elevated cytokine concentrations in the nasopharyngeal and tracheal secretions of children with respiratory syncytial virus disease.
Sheeran P; Jafri H; Carubelli C; Saavedra J; Johnson C; Krisher K; Sanchez P J; Ramilo O
Department of Pediatrics, University of Texas Southwestern Medical Center, Dallas, USA.
Pediatric infectious disease journal (UNITED STATES) Feb 1999, 18 (2) p115-22, ISSN 0891-3668 Journal Code: 8701858
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: Completed
BACKGROUND: Respiratory syncytial virus (RSV) is the most common cause of lower respiratory tract disease in infants. The role of inflammatory mediators in the pathogenesis of RSV disease is not well-understood. The present study was designed (1) to determine whether RANTES (regulated on activation, normal T cell expressed and presumably secreted), macrophage-inflammatory protein-1-alpha (MIP-1-alpha), interleukin (IL)-6, IL-8 and IL-10 can be detected in respiratory secretions of children with RSV infection and (2) to assess whether the concentrations of these cytokines in respiratory secretions correlate with white blood cell (WBC) counts and RSV concentrations and with disease severity. METHODS: During the 1996 to 1997 RSV season, we studied prospectively 14 intubated and 14

nonintubated children hospitalized with RSV disease. Nasal wash (NW) and tracheal aspirate (TA) samples were obtained from intubated patients on Hospital Days 1, 3 and 5. NW samples were obtained from nonintubated patients on hospital days 1 and 3. Seven healthy children undergoing elective surgery served as controls. All samples were analyzed for: (1) WBC and differential counts; (2) concentrations of RANTES, MIP-1-alpha, IL-6, IL-8 and IL-10; and (3) quantitative RSV cultures, except in control patients. RESULTS: RANTES, MIP-1-alpha, IL-6, IL-8 and IL-10 were detected in NW and TA samples from all children with RSV infection. The concentrations of these cytokines in samples obtained from children with RSV infection were significantly greater than those in samples obtained from control children. NW WBC counts significantly correlated with NW RANTES, IL-6, IL-8 and IL-10 concentrations, whereas TA WBC counts significantly correlated with TA IL-6, IL-8, IL-10 and MIP-1-alpha concentrations. NW RSV concentrations correlated with NW WBC counts and with NW cytokine concentrations. Among children with RSV infection nonintubated patients had greater NW WBC counts and NW RANTES concentrations than intubated patients. TA RANTES, IL-8 and IL-10 concentrations inversely correlated with clinical markers of RSV disease severity. CONCLUSION: The presence of cytokines in NW and TA samples of children with RSV infection suggests that they have a role in mediating the respiratory tract inflammation induced by RSV. These observations could have implications for designing new therapeutic strategies directed at immunomodulation of RSV disease.

Record Date Created: 19990706

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$9.23 Estimated total session cost 1.936 DialUnits

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*File 155: For updating information please see Help News155. Alert
feature enhanced with customized scheduling. See HELP ALERT.

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? t s3/7/2
 3/7/2
DIALOG(R)File 155:MEDLINE(R)
11105324  21117418  PMID: 11225775
 Immunochromatographic techniques--a critical review.
 Weller M G
 Institute of Hydrochemistry, Technical University of Munich, Munchen,
Germany. michael.weller@ch.tum.de
 Fresenius' journal of analytical chemistry (Germany)  Mar-Apr 2000,  366
 (6-7)  p635-45,  ISSN 0937-0633  Journal Code: 9114077
 Document type: Journal Article; Review; Review, Tutorial
 Languages: ENGLISH
 Main Citation Owner: NLM
 Record type: Completed
 Hyphenated techniques have become very popular during the last decade.
Nevertheless, the use of biochemical methods, such as immunoassays, in
conjunction with instrumental methods, such as chromatography, have not
gained widespread acceptance. This review critically discusses many of the
implemented and potential options for such coupled systems or components,
which might be useful for such systems, including immunoaffinity
extraction, immunoaffinity chromatography, immunochemical detectors,
immunoblotting, receptor assays, enzyme inhibition assays, displacement
assays, flow-injection immunoassays, miniaturized techniques and stationary
phases such as restricted access materials or molecularly imprinted
polymers. The performance of immunochromatographic systems is discussed
regarding their ability to solve highly complex and demanding analytical
problems. (96 Refs.)
 Record Date Created: 20010227
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? s s4 and s5
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       487393  S5
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? s lateral(w)s4
       102037  LATERAL
       295952  S4
    S7      40  LATERAL(W)S4
? t s7/7/20
 7/7/20
DIALOG(R)File 155:MEDLINE(R)
11267090  21297323  PMID: 11404522
 Assessment of the performance of a rapid, lateral flow assay for the
detection of antibodies to HIV.
 Ketema F; Zeh C; Edelman D C; Saville R; Constantine N T
 Department of Pathology, University of Maryland School of Medicine,
Baltimore, Maryland, USA. ketema@umbi.umd.edu
 Journal of acquired immune deficiency syndromes (1999) (United States)
May 1 2001, 27 (1) p63-70, ISSN 1525-4135  Journal Code: 100892005
 Document type: Evaluation Studies; Journal Article
 Languages: ENGLISH
 Main Citation Owner: NLM
 Record type: Completed
 Rapid HIV assays have recently been shown to have important applications
for various testing situations, including early identification of infected
individuals, to allow intervention strategies in a clinically relevant time
frame. A rapid, lateral flow, HIV-1/2/O assay was evaluated using 2,000
serum or plasma samples from various risk groups and geographic locations,
including HIV-1 and HIV-2 positive sera from five countries. Two U.S. Food
and Drug Administration (FDA)-licensed screening assays and a FDA-licensed
confirmatory assay were used as reference tests. The rapid assay exhibited
a near-perfect sensitivity (99.2%) and an excellent specificity (99.9%).
Moreover, its analytical sensitivity was found to be better than most
FDA-licensed enzyme-linked immunosorbent assays (ELISAs), detecting
infection at the same time as the most sensitive ELISA in two of five
seroconversion panels, and at the same time or earlier than four of five
ELISAs in all five panels. We conclude that this rapid assay is a suitable
test for the detection of HIV infection that could be particularly useful
in developing countries where facilities may not support the use of
instrumentation.
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       245066  DETECTION
        47027  ZONE
    S8     30  (APPLICATION OR DETECTION)(W)ZONE
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    $1.73  TELNET
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DIALINDEX(R)
  (c) 2002 The Dialog Corporation plc
*** DIALINDEX search results display in an abbreviated ***
*** format unless you enter the SET DETAIL ON command. ***
? sf allscience
  You have 247 files in your file list.
  (To see banners, use SHOW FILES command)
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           3   10: AGRICOLA_70-2002/Dec
          44   16: Gale Group PROMT(R)_1990-2002/Dec 19
           8   19: Chem.Industry Notes_1974-2002/ISS 200252
           8   20: Dialog Global Reporter_1997-2002/Dec 19
          78   34: SciSearch(R) Cited Ref Sci_1990-2002/Dec W4
           3   42: Pharmaceuticl News Idx_1974-2002/Dec W3
           2   47: Gale Group Magazine DB(TM)_1959-2002/Dec 16
          87   50: CAB Abstracts_1972-2002/Nov
           2   65: Inside Conferences_1993-2002/Dec W3
          40   71: ELSEVIER BIOBASE_1994-2002/Dec W3
         130   73: EMBASE_1974-2002/Dec W3
          49   94: JICST-EPlus_1985-2002/Oct W2
           2   95: TEME-Technology & Management_1989-2002/Dec W2
           3   98: General Sci Abs/Full-Text_1984-2002/Nov
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           1  103: Energy SciTec_1974-2002/Dec B1
           1  111: TGG Natl.Newspaper Index(SM)_1979-2002/Dec 13
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           6  172: EMBASE Alert_2002/Dec W3
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           9  187: F-D-C Reports_1987-2002/Dec W2
           3  192: Industry Trends & Anal._1997/Jun
           4  198: Health Devices Alerts(R)_1977-2002/Dec W4
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Examined 100 files
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           7  285: BioBusiness(R)_1985-1998/Aug W1
          29  286: Biocommerce Abs.& Dir._1981-2002/Nov B2
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           2  305: Analytical Abstracts_1980-2002/Dec W2
           6  319: Chem Bus NewsBase_1984-2002/Dec 19
          17  340: CLAIMS(R)/US Patent_1950-02/Dec 12
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           4  371: French Patents_1961-2002/BOPI 200209
           1  388: PEDS: Defense Program Summaries_1999/May
          11  399: CA SEARCH(R)_1967-2002/UD=13725
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         249  654: US PAT.FULL._1976-2002/Dec 17
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5 765: Frost & Sullivan_1992-1999/Apr
2 767: Frost & Sullivan Market Eng_2002/Dec
4 810: Business Wire_1986-1999/Feb 28
8 813: PR Newswire_1987-1999/Apr 30

63 files have one or more items; file list includes 247 files.

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Your last SELECT statement was:
S DIAGNOSTIC AND IMMUNOCHROMATOG?

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N3	180	5: Biosis Previews(R)_1969-2002/Dec W3
N4	130	73: EMBASE_1974-2002/Dec W3
N5	122	155: MEDLINE(R)_1966-2002/Nov W3
N6	105	440: Current Contents Search(R)_1990-2002/Dec 19
N7	103	144: Pascal_1973-2002/Dec W3
N8	89	348: EUROPEAN PATENTS_1978-2002/Dec W02
N9	87	50: CAB Abstracts_1972-2002/Nov
N10	78	34: SciSearch(R) Cited Ref Sci_1990-2002/Dec W4

63 files have one or more items; file list includes 247 files.

- Enter P or PAGE for more -
? s diagnostic and immunochromatog? and virus
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7	16: Gale Group PROMT(R)_1990-2002/Dec 19
1	20: Dialog Global Reporter_1997-2002/Dec 19
18	34: SciSearch(R) Cited Ref Sci_1990-2002/Dec W4
18	50: CAB Abstracts_1972-2002/Nov
12	71: ELSEVIER BIOBASE_1994-2002/Dec W3
31	73: EMBASE_1974-2002/Dec W3
15	94: JICST-EPlus_1985-2002/Oct W2
1	98: General Sci Abs/Full-Text_1984-2002/Nov
Examined 50 files	
1	129: PHIND(Archival)_1980-2002/Dec W3
21	144: Pascal_1973-2002/Dec W3
3	148: Gale Group Trade & Industry DB_1976-2002/Dec 18
7	149: TGG Health&Wellness DB(SM)_1976-2002/Dec W1
29	155: MEDLINE(R)_1966-2002/Nov W3
2	156: ToxFile_1965-2002/Nov W3
3	172: EMBASE Alert_2002/Dec W3
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2	621: Gale Group New Prod.Annou.(R)_1985-2002/Dec 18
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36 files have one or more items; file list includes 247 files.

? save temp
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1	211: Gale Group Newsearch(TM)_2002/Dec 18

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SYSTEM:OS  - DIALOG OneSearch
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       (c) 2002 BIOSIS
*File  5: Alert feature enhanced for multiple files, duplicates
removal, customized scheduling. See HELP ALERT.
  File  73:EMBASE  1974-2002/Dec W3
       (c) 2002 Elsevier Science B.V.
*File  73: Alert feature enhanced for multiple files, duplicates
removal, customized scheduling. See HELP ALERT.

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       823245  VIRUS
     S1      4  (VERTICAL OR LATERAL)(W)FLOW AND DIAGNOSTIC AND VIRUS
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       199790  LATERAL
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...completed examining records
     S4     47  RD (unique items)
? t s4/7/24 25 27 40 42 46
 4/7/24     (Item 24 from file: 5)
DIALOG(R)File  5:Biosis Previews(R)
(c) 2002 BIOSIS. All rts. reserv.
11392310  BIOSIS NO.: 199800173642
Rapid diagnosis of adenoviral conjunctivitis on conjunctival swabs by
  10-minute immunochromatography.
AUTHOR: Uchio Eiichi(a); Aoki Koki; Saitoh Waka; Itoh Norihiko; Ohno
  Shigeaki
AUTHOR ADDRESS: (a)Dep. Ophthalmol., Yokohama City Univ. Sch. Med.,
  Kanazawa, Yokohama, 236 Kanagawa**Japan
JOURNAL: Ophthalmology  104 (8):p1294-1299 Aug., 1997
ISSN: 0161-6420
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English
ABSTRACT: Purpose: Several methods are available for the diagnosis of acute
  conjunctivitis, all of which are time-consuming or require the use of a
  well-equipped laboratory. A new method, immunochromatography (IC), for
  detecting the presence of adenovirus (Ad) has been developed. Two direct
  rapid tests to detect Ad antigen, IC and enzyme immunoassay (EIA), were
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compared with regard to sensitivity, specificity, and technical complexity. Methods: The study materials consisted of 130 swabs from patients with conjunctivitis (95 samples of adenoviral conjunctivitis proven by positive virus DNA on polymerase chain reaction (PCR), 35 samples of nonadenoviral conjunctivitis proven by PCR). IC is a one-step procedure that detects the presence of adenoviral antigen by sandwich EIA on a paper disc. Results: In 95 adenoviral DNA-positive samples by PCR, the sensitivity and specificity of IC were 54.7% and 97.1%, respectively, whereas those of EIA were 50.5% and 100%, respectively. By IC, PCR-positive Ad type 3 was recognized in 31%; Ad4 in 100%; Ad7 in 60%; Ad8 in 67%; and Ad37 in 59%, showing similar positivity rates for different serotypes (except Ad7) to those using EIA. Visual determination of the presence of Ad took an average of 10 minutes by IC compared with 70 minutes by EIA. Conclusions: These results indicate that IC is a more rapid and easier test compared with EIA, and it has high specificity. Detection of Ad antigen by this simple and rapid method will serve physicians as a useful tool for early diagnosis and prevention of adenoviral conjunctivitis.

4/7/25 (Item 25 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

11313942 BIOSIS NO.: 199800095274
The use of immunochromatography test cards in the diagnosis of hepatitis B surface antigen among pregnant women in West Africa.
AUTHOR: Torlesse H(a); Wurie I M; Hodges M
AUTHOR ADDRESS: (a)Div. Environmental and Evolutionary Biol., Graham Kerr Build., Univ. Glasgow, Glasgow G12 8QQ**UK
JOURNAL: British Journal of Biomedical Science 54 (4):p256-259 Dec., 1997
ISSN: 0967-4845
DOCUMENT TYPE: Article
RECORD TYPE: Abstract
LANGUAGE: English
ABSTRACT: Despite the development of successful vaccines against hepatitis B virus (HBV), Sierra Leone, like many countries lying within the geographical region where HBV infection is highly endemic, has yet to implement an immunization or mass screening programme. However, certain sectors of the population could benefit from HBV screening if it was readily available and affordable. The use of a newly introduced immunochromatography (IC) test card for hepatitis B surface antigen (HBsAg) is examined for use among an ante-natal population in Sierra Leone, and compared with the existing reverse passive hemagglutination (RPHA) method. The prevalence of HBsAg and hepatitis B envelope antigen (HBeAg) in the study population (n=179) was 11.3% and 3.9%, respectively. The speed, sensitivity and simplicity of the IC method make it attractive, particularly for individual use and where laboratory facilities are minimal, but the cost of the test is comparatively high. In the African setting, pending the introduction of HBV vaccination into the Expanded Programme on Immunization (EPI), the IC test card may be of use in the private sector where the turnover of patients is small, as a rapid means of detecting HBsAg in pregnant women who can afford both this facility and HBV vaccination of their newborn babies.

4/7/27 (Item 27 from file: 5)
DIALOG(R)File 5:Biosis Previews(R)

11012973 BIOSIS NO.: 199799634118
Simple devices for sensitive and rapid detection of HBs-Ag and HBs-Ab by immunochromatography using enzyme.
AUTHOR: Yamauchi S; Fujiwara Y; Hasegawa A; Kogaki H; Masuda M; Okamura C; Saruta H; Ashihara H
AUTHOR ADDRESS: Research Lab., Fujirebio Inc., Tokyo**Japan
JOURNAL: Clinical Chemistry 43 (6 PART 2):pS242 1997
CONFERENCE/MEETING: 49th Annual Meeting of the American Association for Clinical Chemistry Atlanta, Georgia, USA July 20-24, 1997
ISSN: 0009-9147
RECORD TYPE: Citation
LANGUAGE: English

4/7/40 (Item 9 from file: 73)
DIALOG(R)File 73:EMBASE

10557612 EMBASE No: 2000020582
Rapid diagnosis of adenovirus respiratory tract infections by immunochromatography
Ouchi K.; Hasegawa K.; Nonaka Y.; Matsushima H.; Komura H.; Maki T.; Nakazawa T.
K. Ouchi, Department of Pediatrics, Saiseikai Shimonoseki General Hosp., 3-4-1 Kifune-cho, Simonoseki, Yamaguchi 751-8502 Japan
AUTHOR EMAIL: outi00@tip.ne.jp
Journal of Infection and Chemotherapy (J. INFECT. CHEMOTHER.) (Japan) 1999, 5/4 (220-222)
CODEN: JICHF ISSN: 1341-321X
DOCUMENT TYPE: Journal; Article
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH
NUMBER OF REFERENCES: 9
A one-step diagnostic test based on an immunochromatographic (IC) assay for adenovirus was evaluated with purified adenovirus and clinical specimens. According to five clinically common serotypes of purified adenovirus tested, the IC test was more sensitive than two commercially available enzyme immunoassay (EIA) test kits. For tonsilopharyngeal specimens from 63 febrile pediatric patients with suspected adenoviral upper respiratory tract infection, the sensitivity and specificity of the IC test against vital isolation by cell culture was 88.5% (23/26) and 100%

(37/37), respectively. The IC test, which is quicker and easier to perform than EIA test kits, is very useful in the rapid diagnosis of adenoviral upper respiratory tract infection of pediatric patients.

4/7/42 (Item 11 from file: 73)
DIALOG(R)File 73:EMBASE

07696806 EMBASE No: 1999178359
Immunochromatography test for rapid diagnosis of adenovirus respiratory tract infections: Comparison with virus isolation in tissue culture
Tsutsumi H.; Ouchi K.; Ohsaki M.; Yamanaka T.; Kuniya Y.; Takeuchi Y.; Nakai C.; Meguro H.; Chiba S.
H. Tsutsumi, Department of Pediatrics, Sapporo Med. Univ. Sch. of Medicine, Chuoku S-1, W-16, Sapporo 060-8543 Japan
AUTHOR EMAIL: tsutsumi@sapmed.ac.jp
Journal of Clinical Microbiology (J. CLIN. MICROBIOL.) (United States) 1999, 37/6 (2007-2009)
CODEN: JCMID ISSN: 0095-1137
DOCUMENT TYPE: Journal; Article
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH
NUMBER OF REFERENCES: 11
The sensitivity and the specificity of a new commercial rapid 10-min adenovirus antigen immunochromatography (IC) test were determined by comparison with the sensitivity and specificity of virus isolation. Of 169 pharyngeal swabs from children with suspected adenovirus respiratory tract infections, 95 (56%) were culture positive for adenovirus. The IC test was sensitive (detecting 69 of these 95 infections [72.6%]) and completely specific (identifying 74 of 74 specimens [100%]) when it was compared with cell culture. The test detected adenovirus serotypes 1, 2, 3, 5, and 7 with almost equal sensitivities. This test is not only rapid and easy to perform but also sensitive and specific for adenovirus respiratory tract infections. The test is sufficiently rapid to be used at the bedside or in an outpatient clinic, with the result being available during a patient's first examination.

4/7/46 (Item 15 from file: 73)
DIALOG(R)File 73:EMBASE

06894636 EMBASE No: 1997179016
Immunochromatography as a new rapid diagnostic method for adenoviral conjunctivitis
Saitoh W.; Uchio E.; Aoki K.; Itoh N.; Ohno S.
W. Saitoh, 3-9 Fukuura, Kanazawa-ku, Yokohama-shi 236 Japan
Japanese Journal of Clinical Ophthalmology (JPN. J. CLIN. OPHTHALMOL.) (Japan) 1997, 51/5 (1073-1076)
CODEN: RIGAA ISSN: 0370-5579
DOCUMENT TYPE: Journal; Article
LANGUAGE: JAPANESE SUMMARY LANGUAGE: ENGLISH; JAPANESE
NUMBER OF REFERENCES: 5
We evaluated immunochromatography (IC) and enzyme-linked immunosorbent assay (ELISA) in detecting the presence of adenovirus antigen in 100 conjunctival scrapings in the physician's office. The scrapings were obtained from patients with suspected viral conjunctivitis. Both methods were similar regarding sensitivity and specificity. Both methods showed similar positive rate for different serotypes. IC required no special laboratory skill or instruments. Visual determination of the presence of adenovirus took an average of 10 minutes by IC and 70 minutes by ELISA. These features show that IC is a more rapid and easy test than ELISA.
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